# I-Storm ADSL Router
# With Firewall Built-in

User's Manual

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**SUPPORT**
If you have any problems with the ADSL Router, please consult this manual.
If you continue to have problems you should contact the dealer where you bought this ADSL Router.
If you have any other questions you can contact the Atlantis Land company directly at the following address:

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# Chapter 1
# Introduction

## 1.1 An Overview of I-STORM ADSL ROUTER

The Atlantis Land I-STORM ADSL ROUTER router provides a high-speed ADSL port and an Ethernet port for high-speed Internet browsing. It can support downstream transmission rates of up to 8Mbps and upstream transmission rates of up to 1024Kbps. It also supports rate management that allows ADSL subscribers to select an Internet access speed suiting their needs and budgets. It is compliant with Multi-Mode standard (ANSI T1.413, Issue 2; G.dmt (G.992.1); G.lite (G992.2)).

The product supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), RFC 1483 encapsulation over ATM (bridged or routed), PPP over Ethernet (RFC 2516), IPoA (RFC1577) and PPTP-to-PPPoA relaying to establish a connection with ISP. Besides, an embedded PPTP client is supported to establish a VPN connection with remote PPTP server. The product also supports VC-based and LLC-based multiplexing.

It is the perfect solution to connect a small group of PCs to a high-speed broadband Internet connection. Multi-users can have high-speed Internet access simultaneously.

This product also serves as an Internet firewall, protecting your network from being accessed by outside users. Not only provide the natural firewall function (Network Address Translation, NAT), it also provides rich firewall features to secure user's network. All incoming data packets are monitored and filtered. Besides, it can also be configured to block internal users from accessing to the Internet.

The product provides three levels of security support. First, it masks LAN users' IP addresses which are invisible to outside users on the Internet, making it much more difficult for a hacker to target a machine on your network. Secondly it can block and redirect certain ports to limit the services that outside users can access. For example, to ensure that games and other Internet applications will run properly, user can open some specific ports for outside users to access internal services in network. Finally it can also detect and block many Hacker Patterns and not allow hacker into your network.

Integrated DHCP services, client and server, allow up to 253 users to get their IP addresses automatically on boot up from the product. Simply set local machines as a DHCP client to accept a dynamically assigned IP address from DHCP server and reboot. Each time local machine is powered up; the router will recognize it and assign an IP address to instantly connect it to the LAN.

For advanced users, Virtual Service function allows the product to provide limited visibility to local machines with specific services for outside users. An ISP provided IP address can be set to the product and then specific services can be rerouted to specific computers on the local network. For instance, a dedicated web server can be connected to the Internet via the product and then incoming requests for HTML that are received by the product can be rerouted to the

dedicated local web server, even though the server now has a different IP address. In this example, the product is on the Internet and vulnerable to attacks, but the server is protected.

Virtual Service can also be used to re-task services to multiple servers. For instance, the product can be set to allow separated FTP, Web, and Multiplayer game servers to share the same Internet-visible IP address while still protecting the servers and LAN users from hackers.

# 1.2 Package Contents

1. I-STORM ADSL ROUTER
2. CD-ROM containing the online manual
3. Quick Start Guide
4. RJ-11 ADSL/telephone cable
5. CAT-5 crossover LAN cable
6. RS-232 cable
7. AC-DC power adapter (5V, 2.6A)

# 1.3 I-STORM ADSL ROUTER Features

I-STORM ADSL ROUTER provides the following features:

**ADSL Multi-Mode Standard:** Supports downstream transmission rates of up to 8Mbps and upstream transmission rates of up to 1024Kbps. It also supports rate management that allows ADSL subscribers to select an Internet access speed suiting their needs and budgets. It is compliant with Multi-Mode standard (ANSI T1.413, Issue 2; G.dmt (G.992.1); G.lite (G992.2)).

**Multi-Protocol to Establish A Connection: S**upports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), RFC 1483 encapsulation over ATM (bridged or routed), PPP over Ethernet (RFC 2516), IPoA (RFC1577) and PPTP-to-PPPoA relaying to establish a connection with ISP. The product also supports VC-based and LLC-based multiplexing.

**Network Address Translation (NAT):** Allows multi-users to access outside resource such as Internet simultaneously with one IP address/one Internet access account. Besides, many application layer gateway (ALG) are supported such as web browser, ICQ, FTP, Telnet, E-mail, News, Net2phone, Ping, NetMeeting and others.

**Firewall:** Supports SOHO firewall with NAT technology. Automatically detects and blocks the Denial of Service (DoS) attack. The hacker's attack will be recorded associated with timestamp in security logging area. More firewall features will be added continually, please visit our web site to download latest firmware.

**Domain Name System (DNS) relay:** provides an easy way to map the domain name (a friendly name for user such as www.yahoo.com) and IP address. When local machine sets its DNS server with this router's IP address. Then every DNS conversion request packet from the PC to this router will be forwarded to the real DNS in outside network. After the router gets the reply, then forwards it back to the PC.

**Virtual Private Network (VPN):** Allow user to make a tunnel with remote site directly to secure the data transmission among the connection. User can use embedded PPTP client supported by this router to make a VPN connection. Or user can run the PPTP client in PC and the router already provides IPSec and PPTP pass through function to establish a VPN connection if user likes to run the PPTP client in his local computer.

**PPP over Ethernet (PPPoE):** Provide embedded PPPoE client function to establish a connection. Users can get greater access speed without changing the operation concept, sharing the same ISP account and paying for one access account. No PPPoE client software is required for local computer. The Always ON, Dial On Demand and auto disconnection (Idle Timer) functions are provided too.

**Virtual Server:** User can specify some services to be visible from outside users. The router can detect incoming service request and forward it to the specific local computer to handle it. For example, user can assign a PC in LAN acting as WEB server inside and expose it to the outside network. Outside user can browse inside web server directly while it is protected by NAT. A **DMZ** host setting is also provided to a local computer exposed to the outside network, Internet.

**Rich Packet Filtering:** Not only filter the packet based on IP address, but also based on Port numbers. It will increase the performance in LAN and WAN, also provide a higher-level security control.

**Dynamic Host Control Protocol (DHCP) client and server:** In the WAN site, the DHCP client can get an IP address from the Internet Server Provider (ISP) automatically. In the LAN site, the DHCP server can allocate up to 253 client IP addresses and distribute them including IP address, subnet mask as well as DNS IP address to local computers. It provides an easy way to manage the local IP network.

**Static and RIP1/2 Routing:** Supports a easy static table or RIP1/2 routing protocol to support routing capability.

**SNTP:** An easy way to get the network real time information from SNTP server.

**Web based GUI:** supports web based GUI for configuration and management. It is a user-friendly with on-line help, providing necessary information and assist user timing. It also supports remote management capability for remote user to configure and manage this product.

# 1.4 I-STORM ADSL ROUTER Application

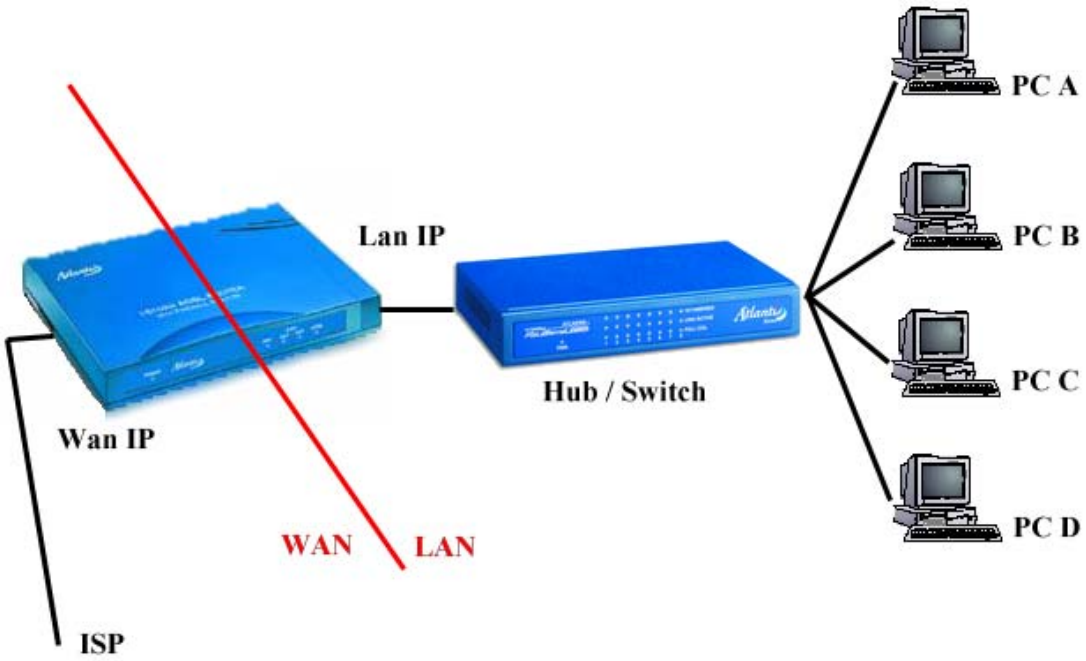
A) Connect WAN port (*LINE*) to the phone line by RJ11 cable (into packing)

B) L'I-Storm Router ADSL can be connect, by RJ45 port (*LAN*), like instructions:

1. Directly to the PC, by CAT 5 crossover cable (into packing).
2. To Hub/Switch into UPLINK port by CAT 5 crossover cable (into packing).
3. To Hub/Switch by CAT 5 cable.

C) Connect AC-DC power adapter (2.6A, 5V) to the electric line and to *POWER* port on back pannel.

D) It's possibile to connect I-Storm Router ADSL to a PC by RS232 cable (into packing) for configuration.



# Chapter 2
# Using I-STORM ADSL ROUTER

## 2.1 Cautions for using I-STORM ADSL ROUTER

*Do not place I-STORM ADSL ROUTER under high humidity and high temperature.*

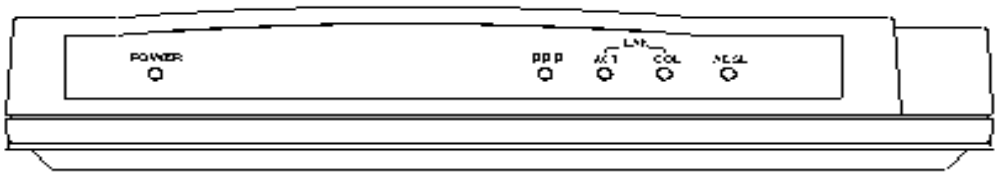
*Do not use the same power source for I-STORM ADSL ROUTER with other equipment.*

*Do not open or repair the case yourself. If I-STORM ADSL ROUTER is too hot, turn off the power immediately and have a qualified serviceman repair it.*

*Place the I-STORM ADSL ROUTER on the stable surface.*

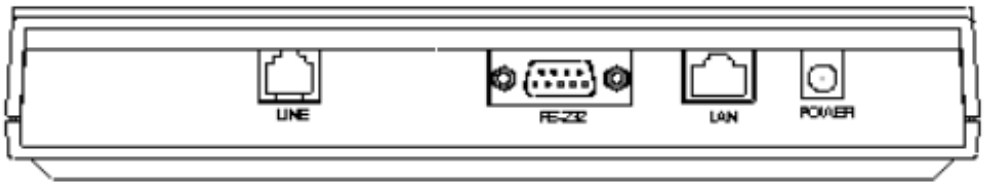
*Only use the power adapter that comes with the package.*

## 2.2 The front LEDs




| LED | | Meaning |
|---|---|---|
| **1** | **Power** | Lit when power is connected. |
| **2** | **PPP** | Lit when PPPoE / PPPoA is connected. |
| **3** | **LAN / ACT** | Lit when connected to a LAN device.<br>Flashes when sending/receiving data. |
| **4** | **LAN / COL** | Lit when data is transmitted to LAN incorrectly. |
| **5** | **ADSL** | Lit when successfully connected to an ADSL DSLAM. |

# 2.3 The Rear Ports




| Port | | Meaning |
|---|---|---|
| 1 | **Power (jack)** | Connect the supplied power adapter to this jack. |
| 2 | **LAN (RJ-45 connector)** | Connect a straight Ethernet cable to this port when connecting to a LAN such as an office or home network.<br><br>Connect the supplied crossover cable to this port when connecting to a LAN card. |
| 3 | **RS-232 (port)** | Connect the supplied RS-232 cable to this port when connecting to a PC's RS-232 port (9-pin serial port). |
| 4 | **LINE (RJ-11 connector)** | Connect the supplied RJ-11 cable to this port when connecting to the ADSL/telephone network. |

# 2.4 Cabling

The most common problem associated with Ethernet is bad cabling or ADSL line. Make sure that all connected devices are turned on. On the front of the product is a bank of LEDs. As a first check, to verify that the LAN Link and ADSL line LEDs are lit. If they are not, verify that you are using the proper cables.

The product's LAN port is wired just like a Network Adapter's port. From the product directly to a PC, the cable should be an Ethernet crossover cable. From the product to a hub or switch, the cable should be an Ethernet straight through cable to a normal hub/switch port, or an Ethernet crossover cable to an uplink port.

*Since the product cannot auto-detect whether your cable is correct or not, please make sure you are using the right cable to a PC or a Hub.*

# Chapter 3
# Configuration

I-STORM ADSL ROUTER can be configured with your Web browser. The web browser is included as a standard application in following operation systems, UNIX, Linux, Mac OS, Windows 95/98/NT/2000/Me, etc. The product provides a very easy and user-friendly interface for configuration.

## 3.1 Before Configuration

This section describes the configuration required by LAN-attached PCs that communicate with the I-STORM ADSL ROUTER , either to configure the device, or for network access. These PCs must have an Ethernet interface installed properly, be connected to the I-STORM ADSL ROUTER either directly or through an external repeater hub, and have TCP/IP installed and configured to obtain an IP address through a DHCP server or a fixed IP address that must be in the same subnet of the I-STORM ADSL ROUTER . The default IP address of the I-STORM ADSL ROUTER is 192.168.1.254 and subnet mask is 255.255.255.0. The best and easy way is to configure the PC to get an IP address from the I-STORM ADSL ROUTER ADSL Router.

Please follow the steps below for PC's network environment installation. First of all, please check your PC's network components. The TCP/IP protocol stack and Ethernet network adapter must be installed. If not, please refer to MS Windows relative manuals.

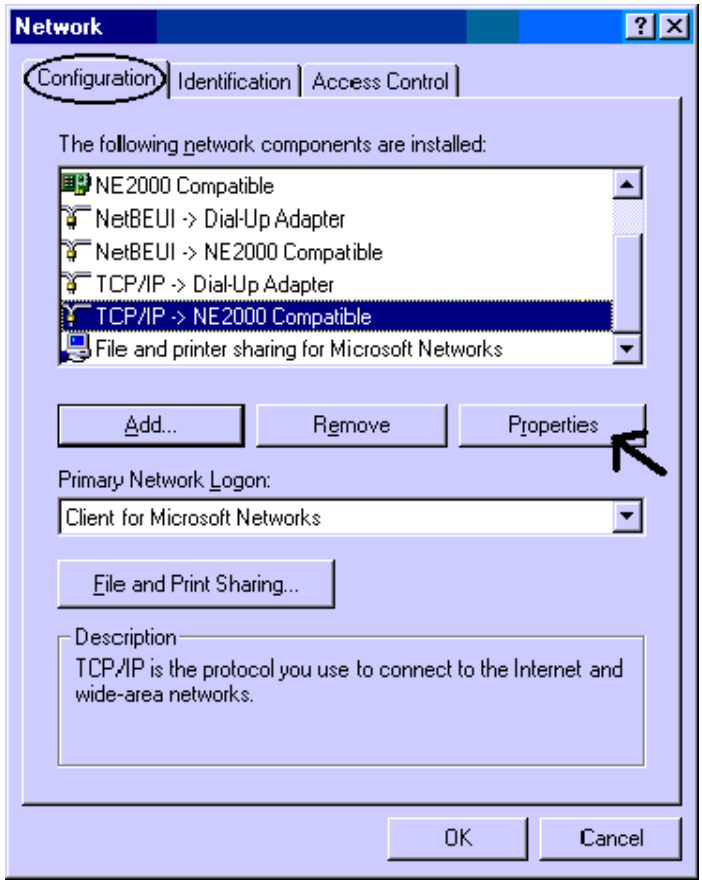
*Any TCP/IP capable workstation can be used to communicate with or through the I-STORM ADSL ROUTER . To configure other types of workstations, please consult the manufacturer's documentation.*

# Configuring PC in Windows 95/98/ME

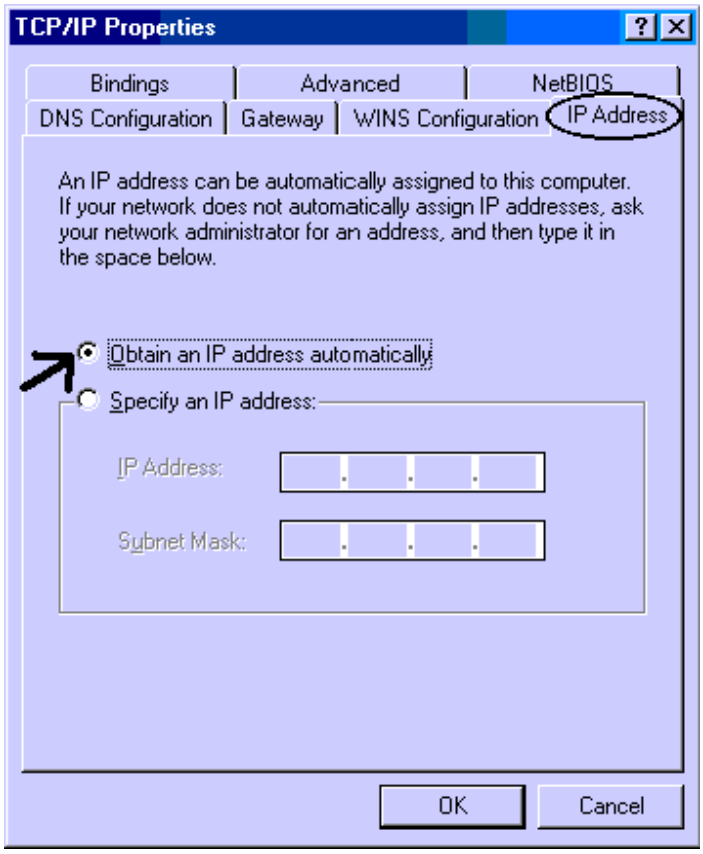
1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network** and choose the **Configuration** tab.

2. Select **TCP / IP -> NE2000 Compatible**, or the name of any Network Interface Card (NIC) in your PC.

3. Click **Properties**.

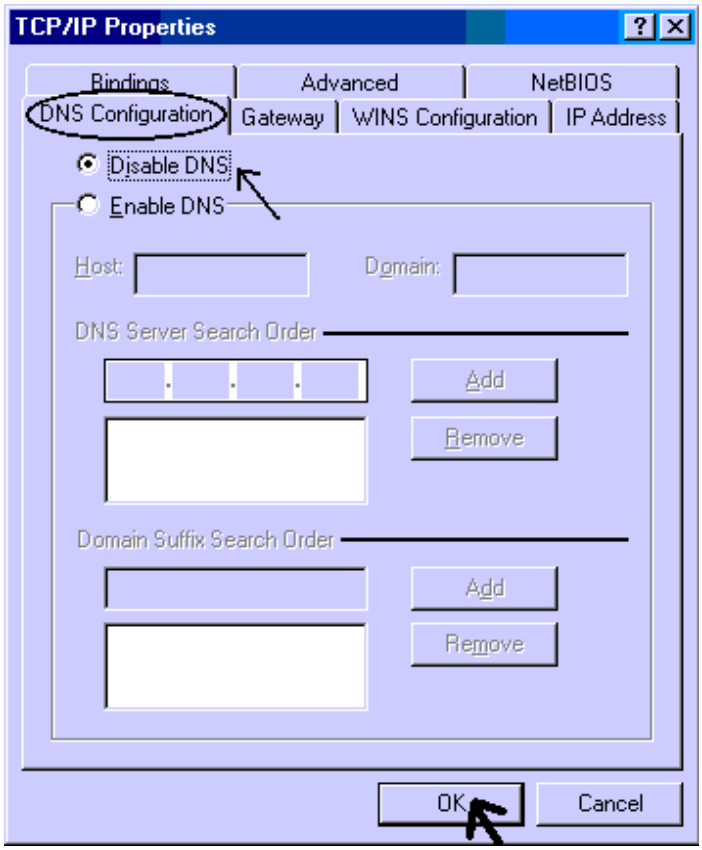



4. Select the **IP Address** tab. In this page, click the **Obtain an IP address automatically** radio button.



5. Then select the **DNS Configuration** tab.

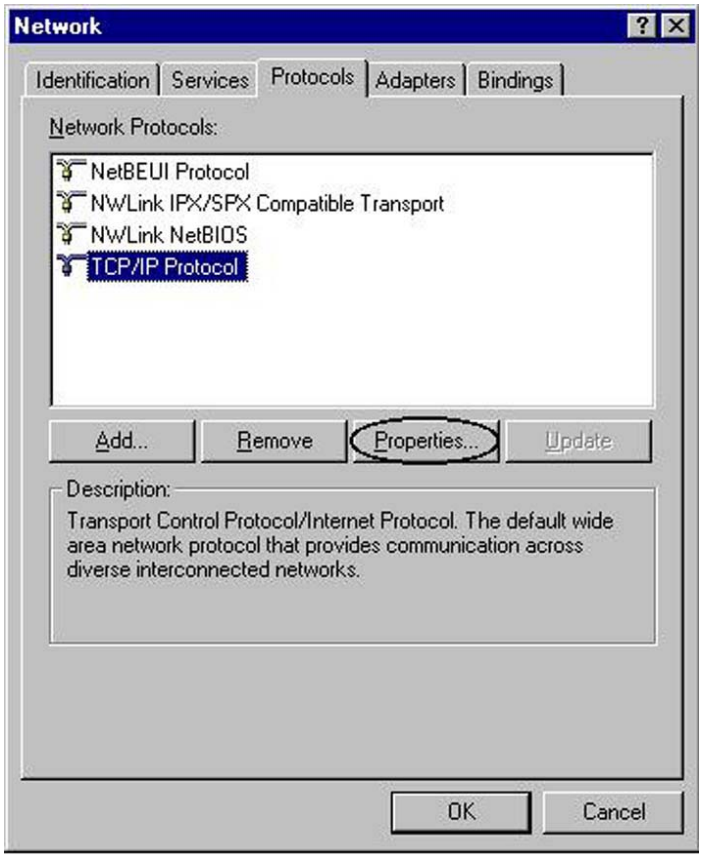
6. Select the **Disable DNS** radio button and click **"OK"** to finish the configuration.



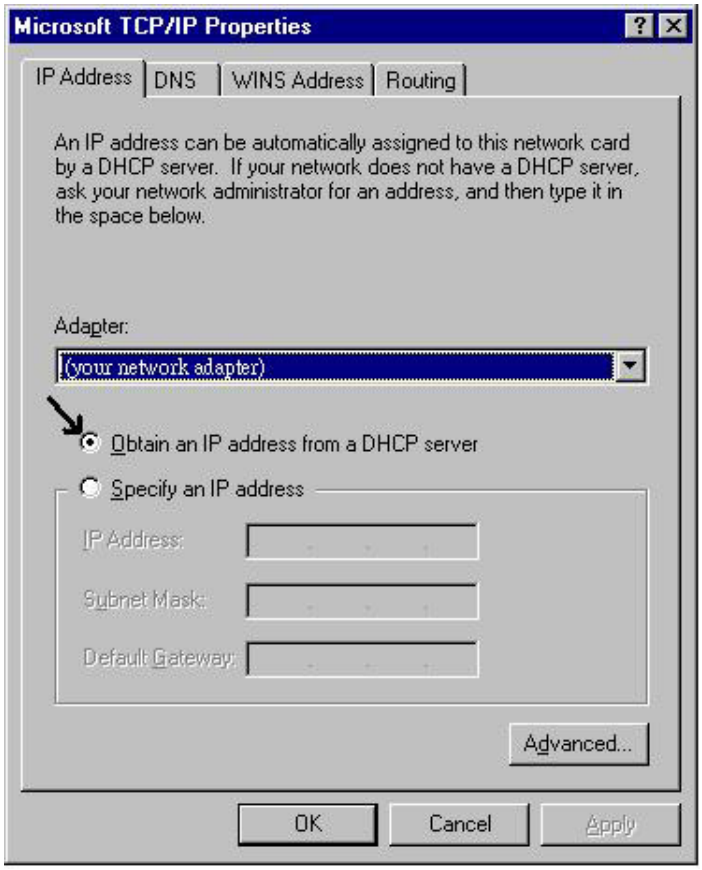

## Configuring PC in Windows NT4.0

1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network** and choose the **Protocols** tab.

2. Select **TCP/IP Protocol** and click **Properties**.

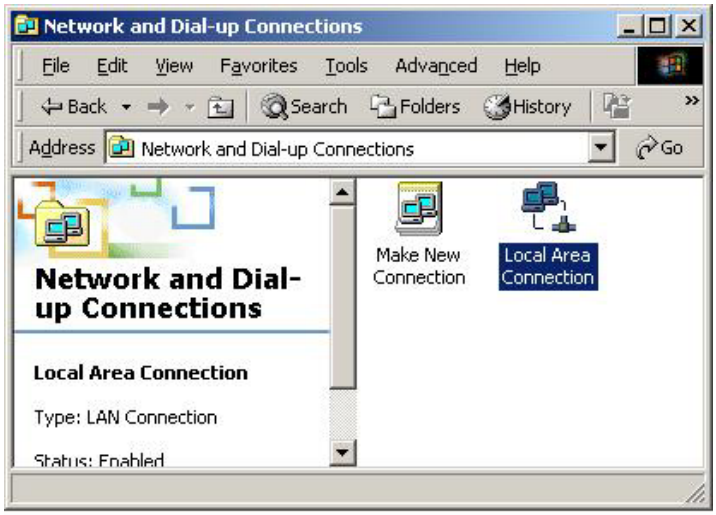


3. Select the **Obtain an IP address from a DHCP server** radio button and click **OK**.

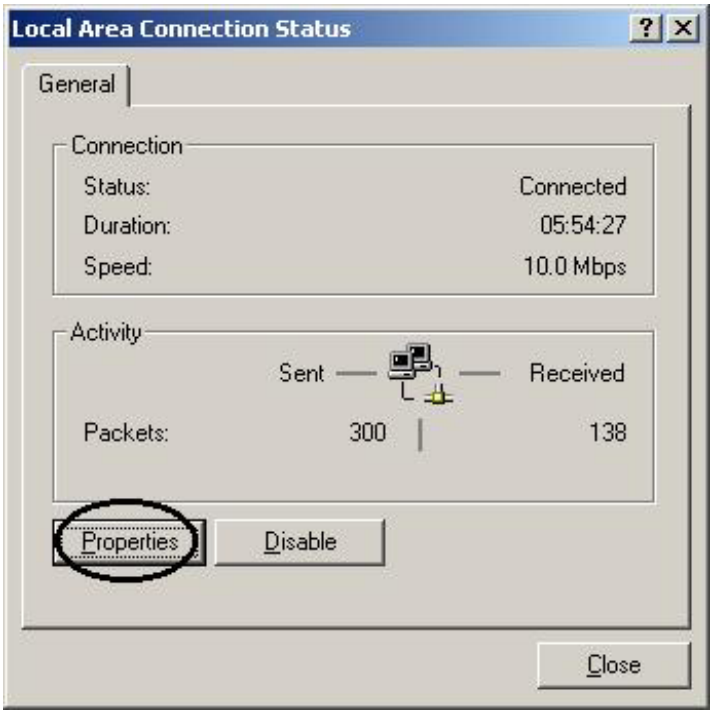



## Configuring PC in Windows 2000

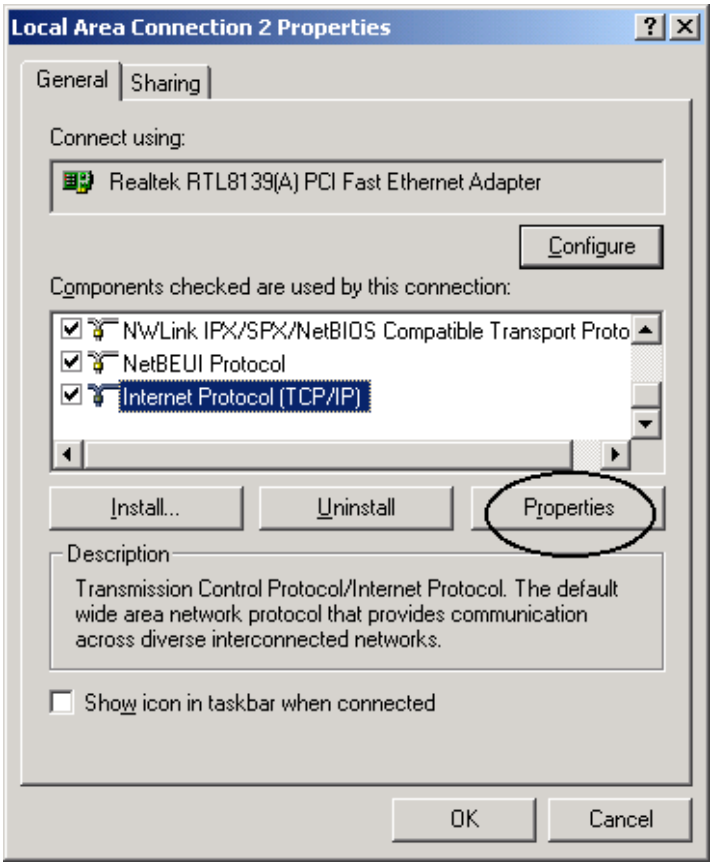
1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network and Dial-up Connections**.
2. Double-click **LAN Area Connection**.



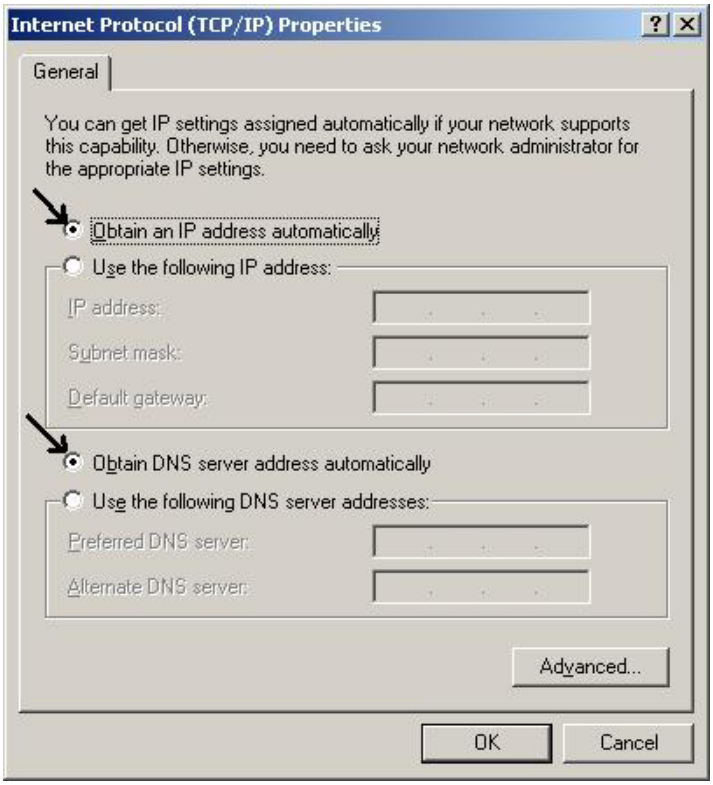
**3.** In the **LAN Area Connection Status** window, click **Properties**.




**4.** Select **Internet Protocol (TCP/IP)** and click **Properties**.

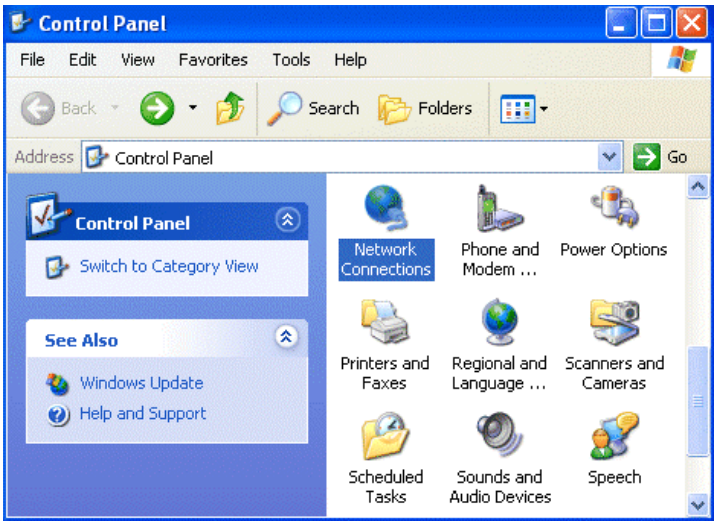


5. Select the **Obtain an IP address automatically** and the **Obtain DNS server address automatically** radio buttons.
6. Click **OK** to finish the configuration.

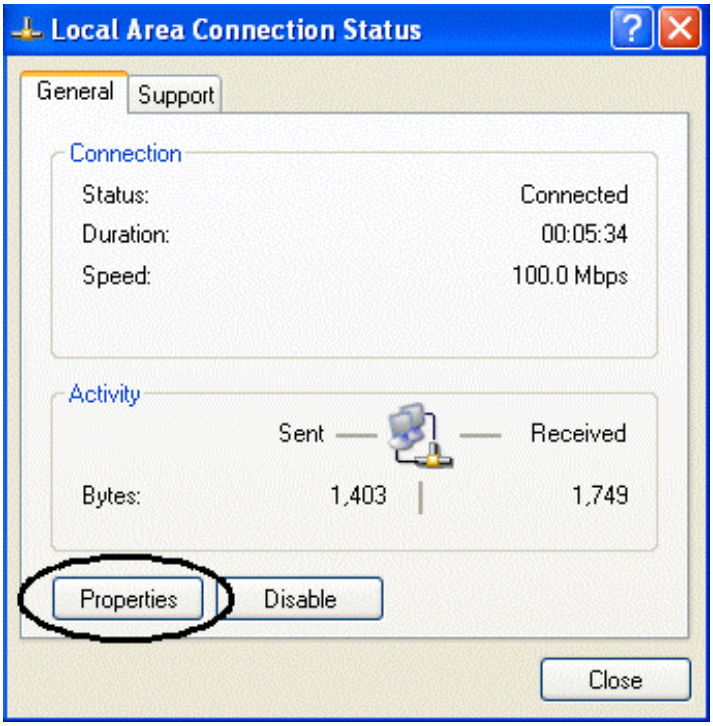



## Configuring PC in Windows XP

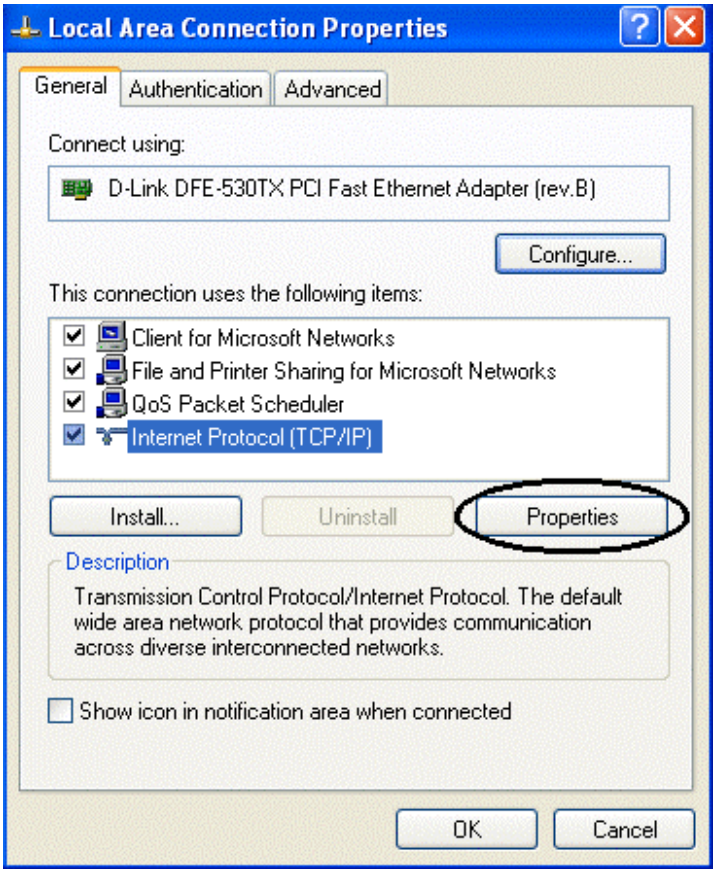
1. Go to **Start / Control Panel (in Classic View)**. In the Control Panel, double-click on **Network Connections.**
2. Double-click **Local Area Connection**.



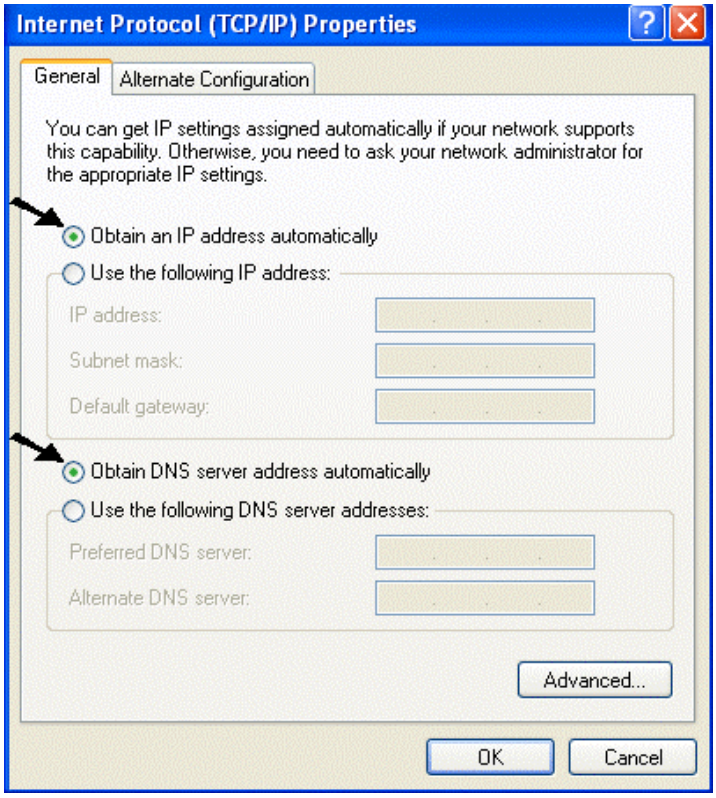
3. In the **LAN Area Connection Status** window, click **Properties**.




4. Select **Internet Protocol (TCP/IP)** and click **Properties**.



5. Select the **Obtain an IP address automatically** and the **Obtain DNS server address automatically** radio buttons.
6. Click **OK** to finish the configuration.




# 3.2 Factory Default Settings

Before you configure this I-STORM ADSL ROUTER , you need to know the following default settings.

1. **Web Configurator**

   Password : <BLANK>

   BLANK means user does not need to input any characters.
2. **Device IP Network settings in LAN site**

   IP Address : 192.168.1.254

   Subnet Mask : 255.255.255.0
3. **Router/Bridge mode**

   Router
4. **ISP setting in WAN site**

   PPPoE
5. **DHCP server**

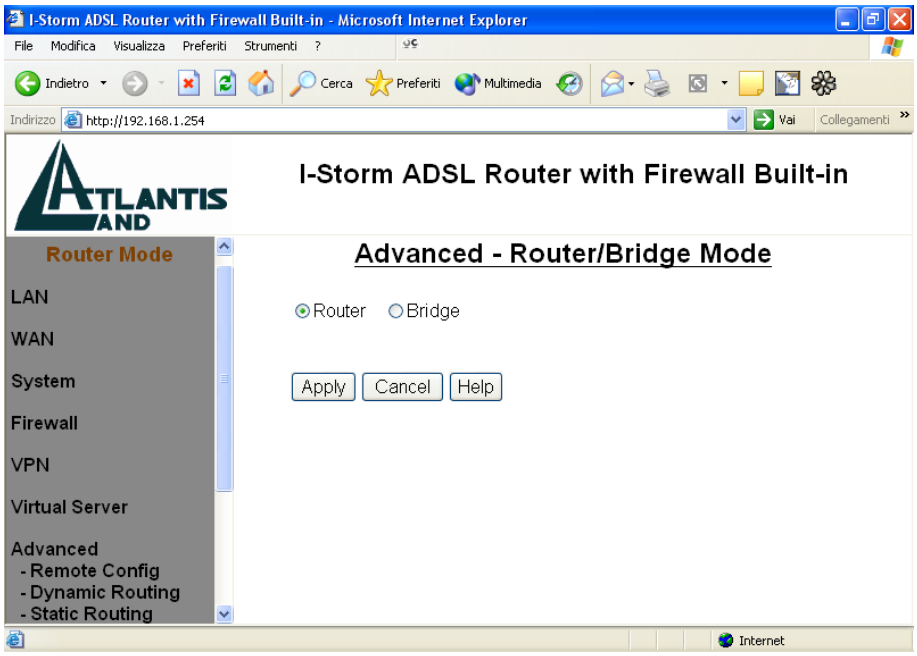
   DHCP server is enabled.

   Start IP Address : 192.168.1.100

   IP pool counts : 100

### 3.2.1 Router/Bridge Mode

The default mode is **Router Mode**. If you want to switch between the two modes, click on **Advanced → Router/Bridge Mode** in the left pane. Select the mode you want to use, and then click the "Apply" button.




### 3.2.2 Password

The password is left blank as the default setting. When configuring your I-STORM ADSL ROUTER with Web browser, just click **"OK"**, and then you are logged in for the first time. It is recommended that you set a password for security and management purpose. The I-STORM ADSL ROUTER maintains the password only. It means the I-STORM ADSL ROUTER only checks the password even you enter characters in the User Name field.

*If you ever forget the password to log in, you should contact the dealer where you bought this product.*

### 3.2.3 LAN and WAN Port Addresses

The parameters of LAN and WAN ports are pre-set in the factory. The default values are shown below.

| LAN Port | | WAN Port |
|---|---|---|
| **IP address** | 192.168.1.254 | PPPoE function is *enabled* to automatically get the WAN port configuration from ISP, but you have to set username and password first. |
| **Subnet Mask** | 255.255.255.0 | |
| **DHCP server function** | Enabled | |
| **IP addresses for distribution to PCs** | 100 IP addresses continuing from 192.168.1.100 through 192.168.1.199<br>(Actually, it can supports up to 253 users.) | |

# 3.3 Information from ISP

Before you start configuring this device, you have to check with your ISP what kind of service is provided such as PPPoE, PPPoA, RFC1483, IPoA, or PPTP-to-PPPoA Relaying.

Gather the information as illustrated in the following table and keep it for reference.

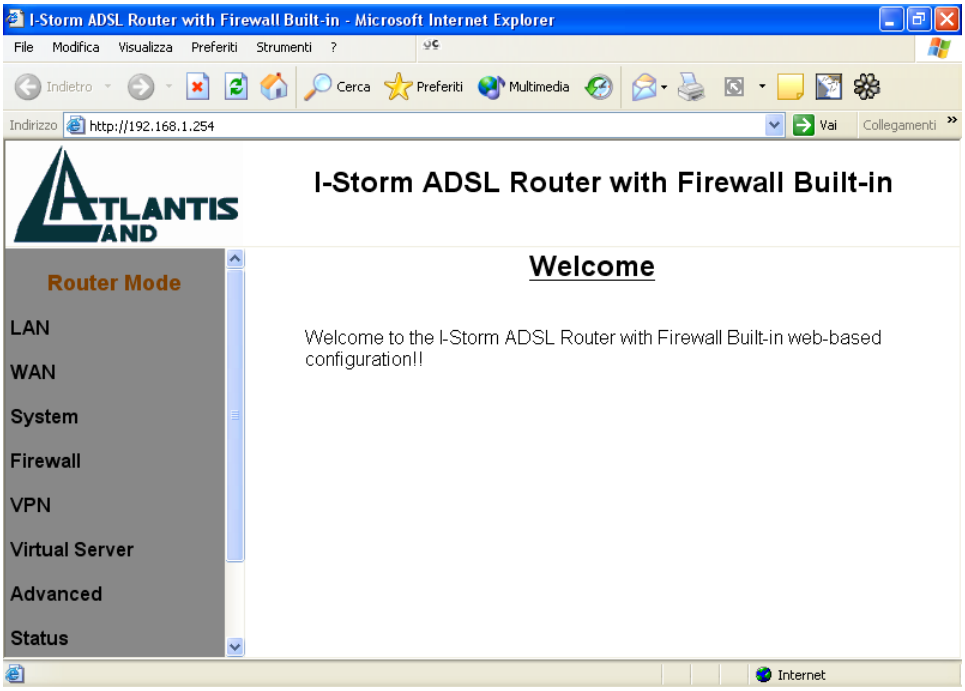
| | |
|---|---|
| **PPPoE** | VPI/VCI, VC-based/LLC-based multiplexing, Username, Password, Service Name, and Domain Name System (DNS) IP address (it can be automatically assigned from ISP or be set fixed). |
| **PPPoA** | VPI/VCI, VC-based/LLC-based multiplexing, Username, Password, and Domain Name System (DNS) IP address (it can be automatically assigned from ISP or be set fixed). |
| **RFC1483 Bridged** | VPI/VCI, VC-based/LLC-based multiplexing and configure this product into BRIDGE Mode. |
| **RFC1483 Routed** | VPI/VCI, VC-based/LLC-based multiplexing, IP address, Subnet mask, Gateway address, and Domain Name System (DNS) IP address (it is fixed IP address). |
| **IPoA** | VPI/VCI, IP address, Subnet mask, Gateway address, and Domain Name System (DNS) IP address (it is fixed IP address). |
| **PPTP-to-PPPoA Relaying** | VPI/VCI, VC-based/LLC-based multiplexing, and Domain Name System (DNS) IP address (it is fixed IP address). |

# 3.4 Configuring with Web Browser in Router Mode

Open the web browser, enter the local port IP address of this I-STORM ADSL ROUTER , which default at **192.168.1.254**, and click "**Go**" to get the login page.

No user name is required. The default password is left blank. If you have set a password, enter that and click **"OK"** to continue.

At the configuration homepage, the left navigation pane where bookmarks are provided links you directly to the desired setup page, including **LAN, WAN, System, Firewall, VPN, Virtual Server, Advanced, Status, Help** and **Logout**.

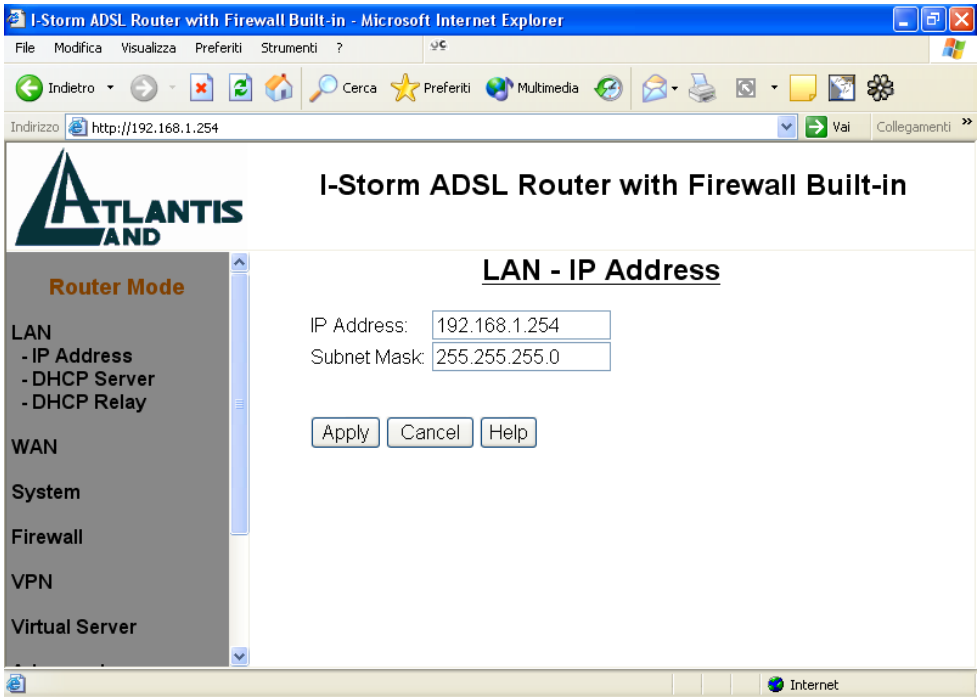



Click on the desired item to expand the page in the main navigation pane.

### 3.4.1 LAN

This screen contains settings for LAN interface attached to the LAN port.

## IP Address

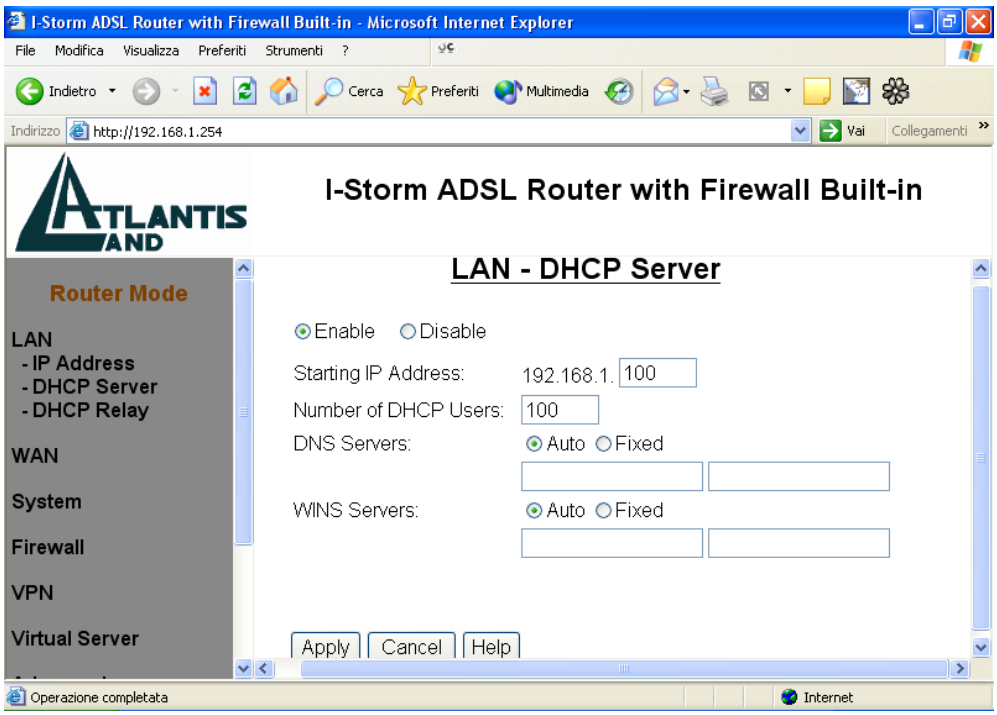



**IP Address:** Default at 192.168.1.254.

This is the device IP address in LAN site. If you plan to change it to another IP address to a different range of IP subnet. Please make sure your PC is also located at the same IP subnet. Otherwise, you may not be able to access the ADSL Router.

**Subnet Mask:** Default at 255.255.255.0.

## DHCP Server



⊙ **Disable:** Check to disable I-STORM ADSL ROUTER to distribute IP Addresses to the local network.

If you check this selection, **Disable**, remember to specify a static IP address, subnet Mask, and DNS setting for each of your local computers. Be careful not to assign the same IP address to different computers.

⊙ **Enable:** Check to enable I-STORM ADSL ROUTER to distribute IP Addresses, subnet mask and DNS setting to computers. Hence, the following fields will be activated.

**Starting IP Address:** Enter the starting address of this local IP network address pool. The pool is a piece of continuous IP address segment. The default value is **192.168.1.100**.

**Number of DHCP users:** Enter the maximum number of computers that you want the DHCP server to assign IP addresses to. The default value is **100**.

With this case, the DHCP pool is from 192.168.1.100 to 192.168.1.199. Therefore, the local computer will get an IP address located at this range randomly.

*If there is already a DHCP server on your LAN, you should disable the router's DHCP server function in order to avoid possible conflicts.*

### 3.4.2 WAN

The screens below contain settings for the WAN interface toward Internet.

#### ISP

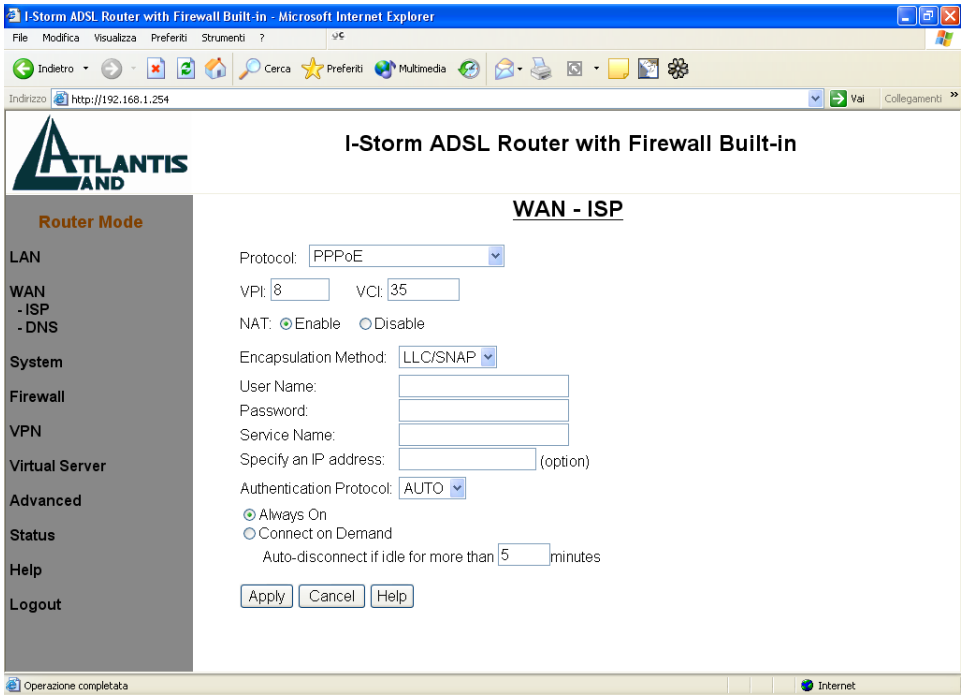
There are five ways ─ PPPoE, PPPoA, RFC1483 routed, IPoA, PPTP-to-PPPoA Relaying ─ for the device to have a public IP address and then to access Internet. You have to check with your ISP about which way is adopted.
**VPI/VCI:** Consult the telephone company to get the Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) numbers. The valid range for the VPI is 0 to 255 and for the VCI is 32 to 65535. The default value VPI is 0 and VCI is 32.

**NAT:** The NAT feature allows multiple-user Internet access for the cost of a single IP account. If you need to have a public server or a public network, NAT has to be disabled.

**Encapsulation Method:** Be sure to use the encapsulation method (LLC/SNAP or VC MUX) required by your ISP.

*If you disable the I-STORM ADSL ROUTER 's NAT option, the Virtual Server and VPN functions will be disabled.*

## PPPoE




PPPoE (PPP over Ethernet) is known as a dial-up DSL or cable service. It is designed to integrate the broadband services into the current widely deployed, easy-to-use, and low-cost dial-up-access networking infrastructure. Therefore, users can get greater access speed without changing the operation concept, sharing the same ISP account and paying for one access account. No PPPoE client software is required for local computer if you select this configuration.

**NAT:** The NAT feature allows multiple users to access Internet through a single IP account, sharing the single IP address from ISP. If users in the LAN site have public IP addresses and can access Internet directly, the NAT function can be disabled.

**Username:** Enter the username provided by your ISP. Maximum input is **63** alphanumeric characters (case sensitive).

**Password:** Enter the password provided by your ISP. Maximum input is **63** alphanumeric characters (case sensitive).

**Service Name:** This item is for identification purpose. If it is required, your ISP will provide you the information. Maximum input is **63** alphanumeric characters.

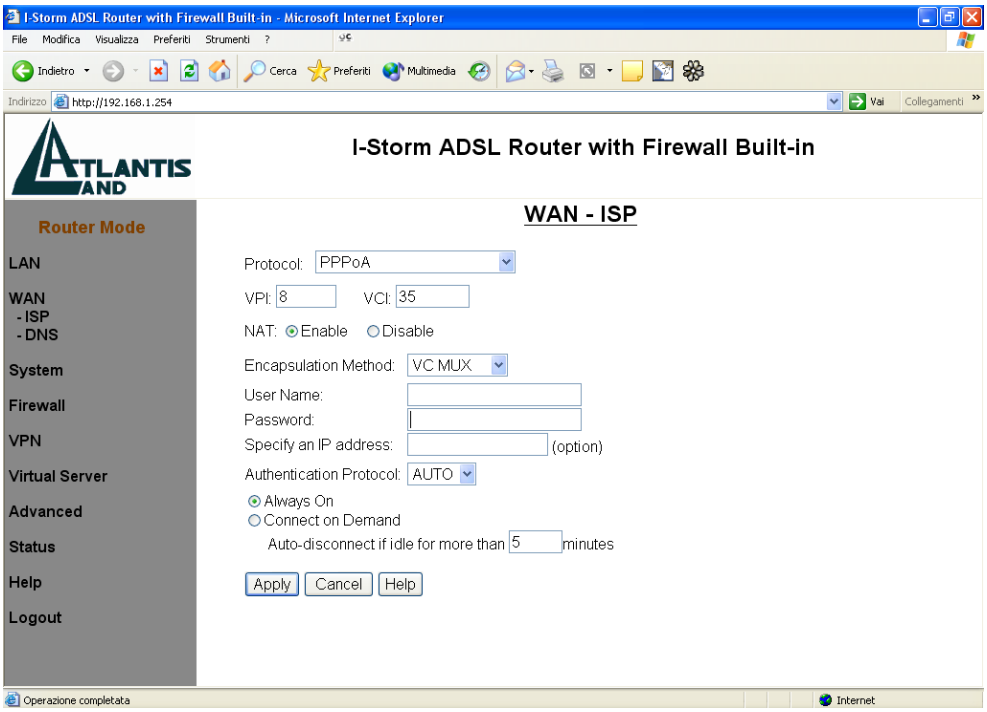
**Authentication Protocol:** Default at "AUTO".

⊙ **Always On:** Check this radio button if you want to establish a PPPoE session when starting up. It will also automatically re-establish the PPPoE session when disconnected by ISP.

⊙ **Connect on Demand:** Check this radio button if you want to establish a PPPoE session only when there is a packet requesting for going out to the Internet.

**Auto-disconnect if idle for more than ☐ minutes**: Auto-disconnect the I-STORM ADSL ROUTER when there is no activity on the line for a predetermined period of time. You can input any number from **0 to 999**. The default value is **5** minutes.

## PPPoA




**NAT:** The NAT feature allows multiple users to access Internet through a single IP account, sharing the single IP address from ISP. If users in the LAN site have public IP addresses and can access Internet directly, the NAT function can be disabled.

**Username:** Enter the username provided by your ISP. Maximum input is **63** alphanumeric characters (case sensitive).

**Password:** Enter the password provided by your ISP. Maximum input is **63** alphanumeric characters (case sensitive).

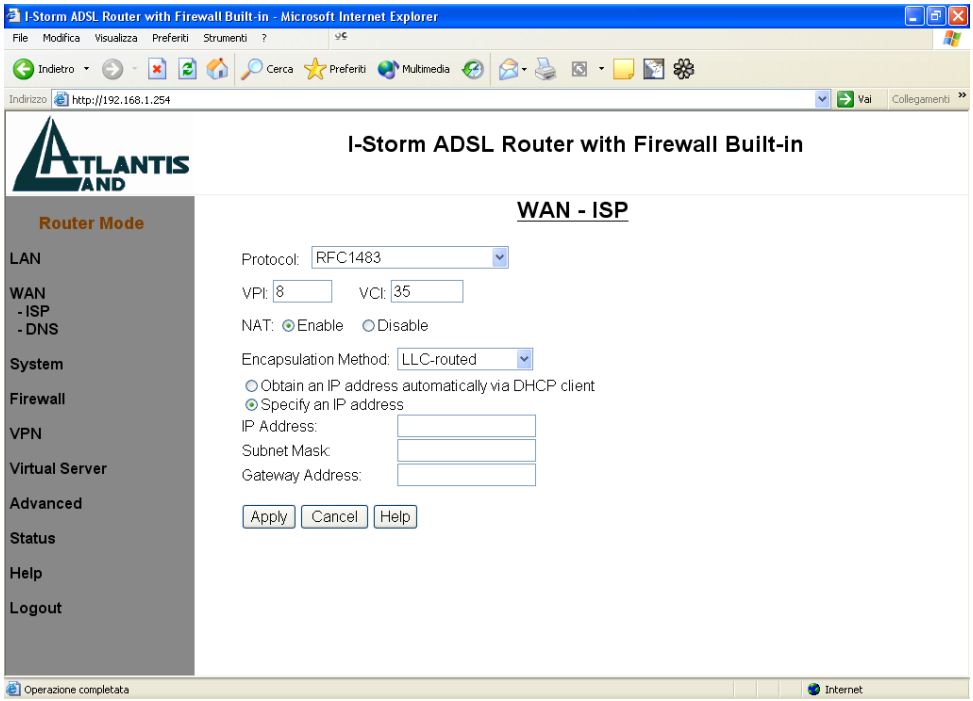
**Authentication Protocol:** Default at "AUTO".

⊙ **Always On:** Check this radio button if you want to establish a PPPoE session when starting up. It will also automatically re-establish the PPPoE session when disconnected by ISP.

⊙ **Connect on Demand:** Check this radio button if you want to establish a PPPoE session only when there is a packet requesting for going out to the Internet.

**Auto-disconnect if idle for more than ☐ minutes**: Auto-disconnect the I-STORM ADSL ROUTER when there is no activity on the line for a predetermined period of time. You can input any number from **0 to 999**. The default value is **5** minutes.

## RFC1483




Configure this WAN interface with a specific IP address. This IP address should be given from ISP directly.

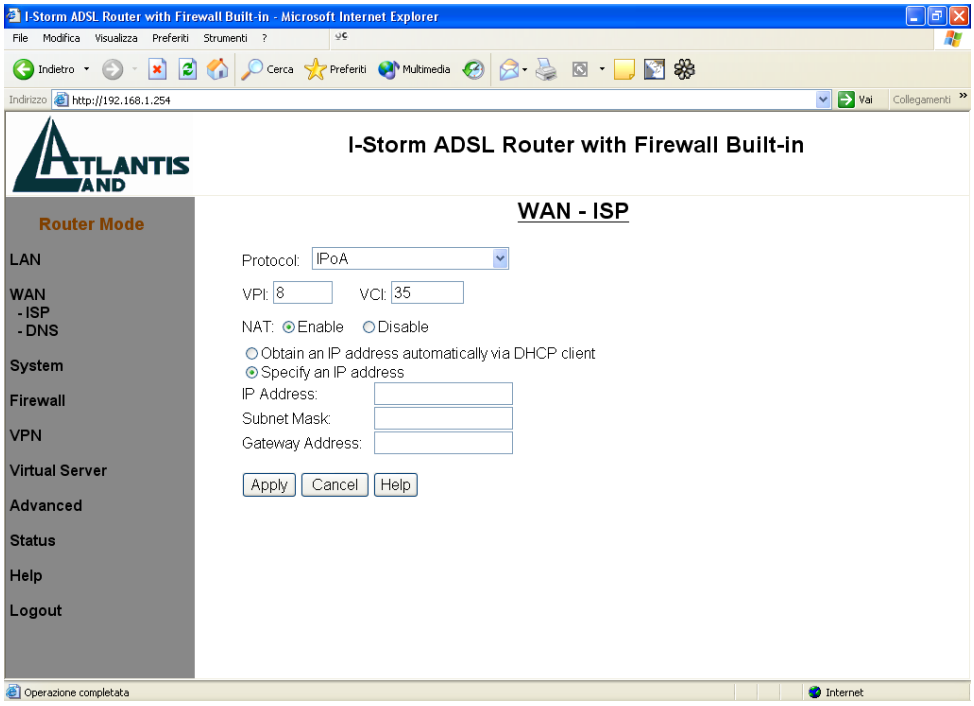
**NAT:** The NAT feature allows multiple users to access Internet through a single IP account, sharing the single IP address from ISP. If users in the LAN site have public IP addresses and can access Internet directly, the NAT function can be disabled.

**IP Address:** Enter the information provided by your ISP.

**Subnet Mask:** Enter the information provided by your ISP.

**Gateway Address:** Enter the information provided by your ISP.

## IPoA




Configure this WAN interface with a specific IP address. This IP address should be given from ISP directly.

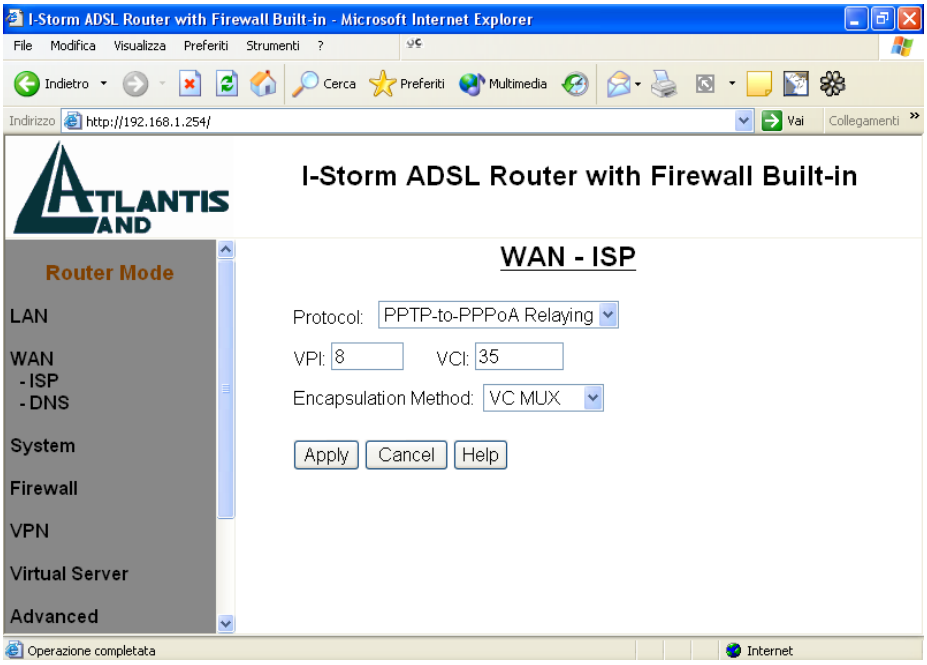
**NAT:** The NAT feature allows multiple users to access Internet through a single IP account, sharing the single IP address from ISP. If users in the LAN site have public IP addresses and can access Internet directly, the NAT function can be disabled.

**IP Address:** Enter the information provided by your ISP.

**Subnet Mask:** Enter the information provided by your ISP.

**Gateway Address:** Enter the information provided by your ISP.

## PPTP-to-PPPoA Relaying

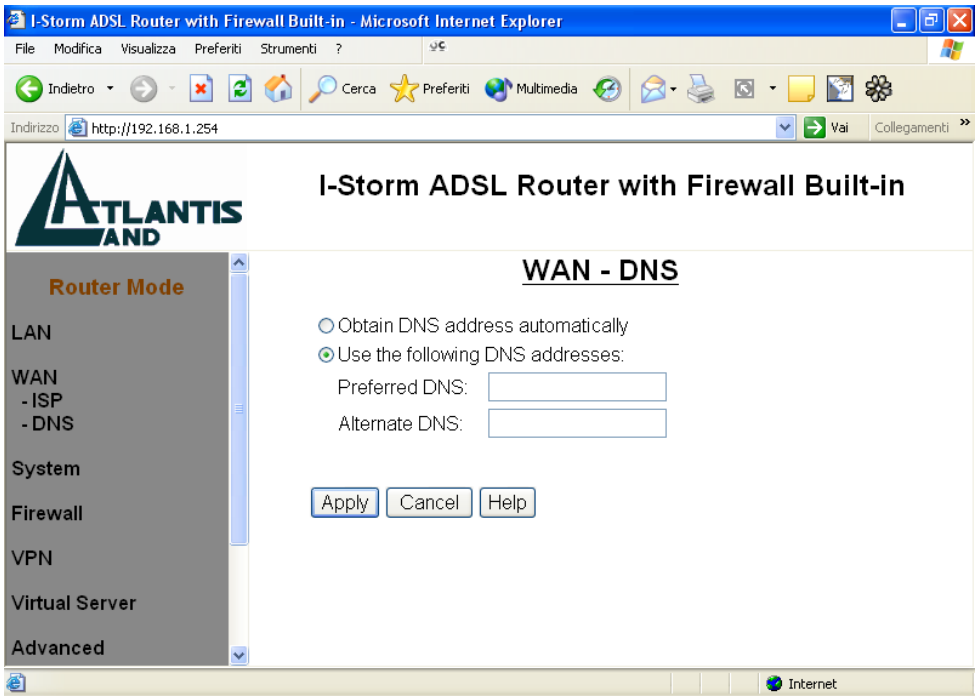


It can be used to connect and establish a PPTP tunnel between PPTP client on LAN and router. The router will convert and map the PPTP packet from/to PPP packet. Router establishes a PPPoA connection with ISP.

## DNS

A Domain Name System (DNS) contains a mapping table for domain name and IP address. In the Internet, every host has a unique and friendly name such as www.yahoo.com and IP address. The IP address is very hard to remember, so that you may just enter the friendly name www.yahoo.com and DNS converts it to its equivalent IP address.

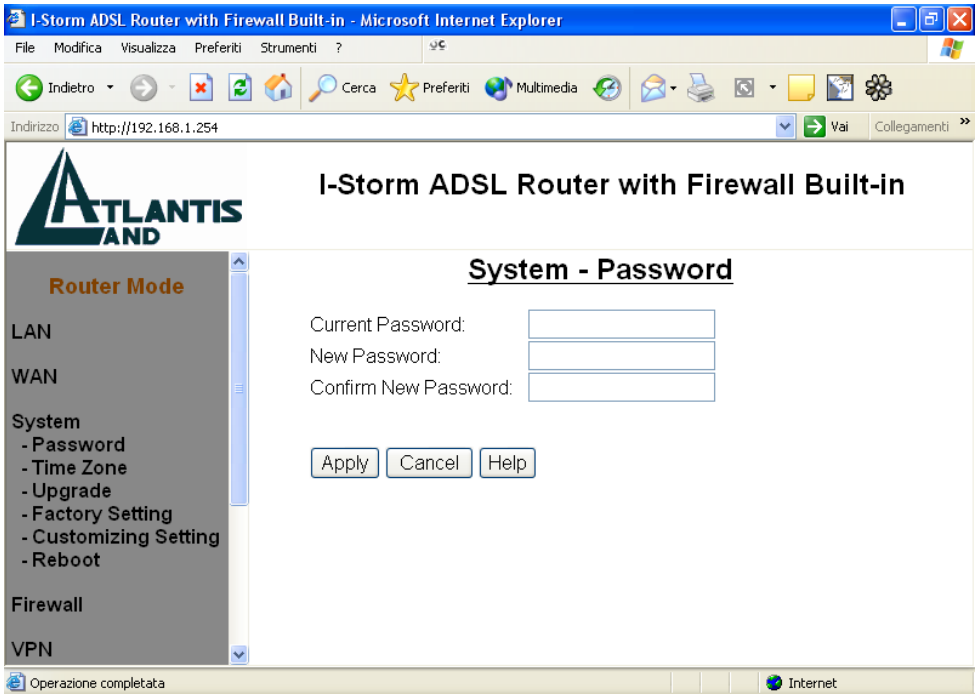
You can obtain Domain Name System (DNS) IP address automatically if ISP provides it when you logon. This **Obtain DNS address automatically** selection is set as default when you choose PPPoE or PPPoA as your WAN - ISP protocol. Or your ISP may provide you with an IP address of DNS. If this is the case, you must enter the DNS IP address.




If you choose the other three protocols ─ RFC1483, IPoA, or PPTP-to-PPPoA Relaying ─ in the ISP section, the following figure will appear. Your ISP may provide you with an IP address of DNS. You must enter the DNS IP address if you set the DNS of your PC to the LAN IP address of this router.

## 3.4.3 System

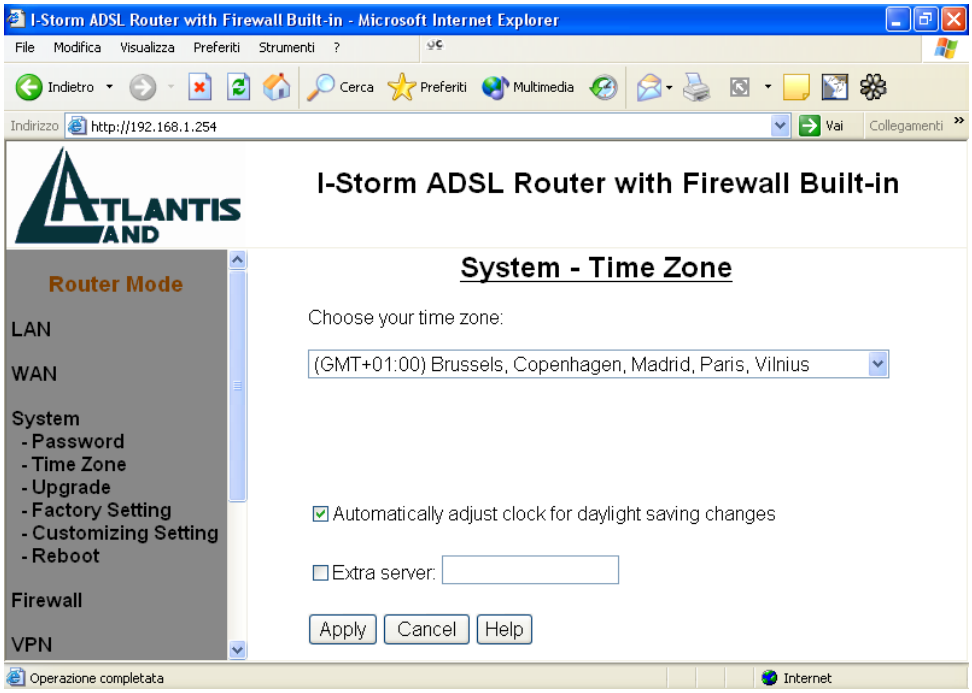
### Password




In factory setting, there is no password protection when user accesses I-STORM ADSL ROUTER . It is recommended that you change the default password <BLANK> to ensure that someone cannot adjust your settings without your permission. <BLANK> means there is no password. Every time you change your password, please record the password and keep it at a safe place.

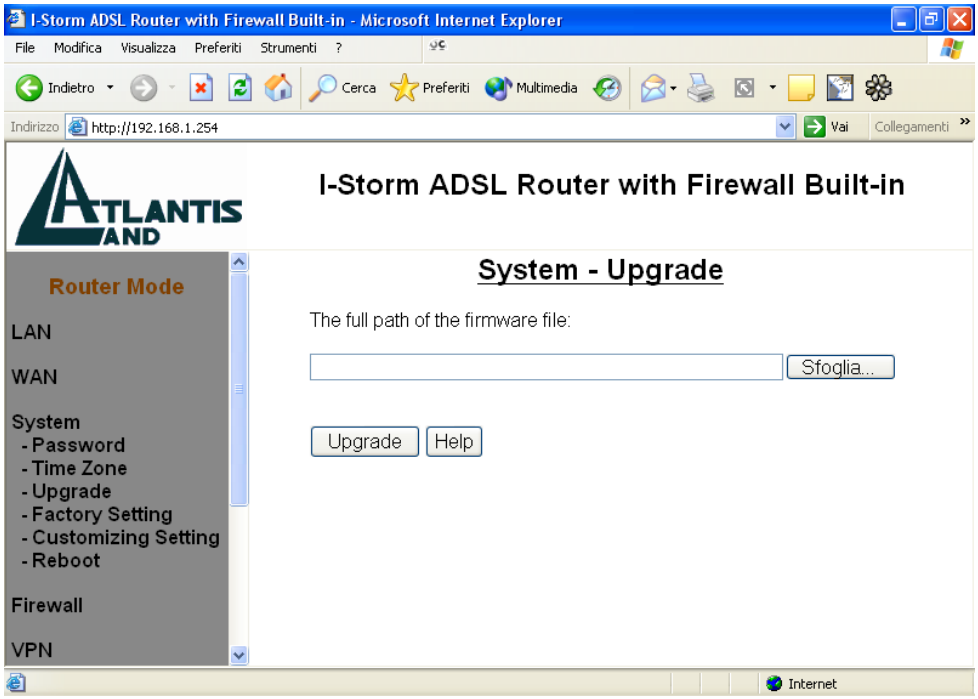
Please note that the maximum input for password is **8** alphanumeric characters long. Since it is **case sensitive**, be sure that you remember whether a letter is in upper or lower case and make sure that your Caps Lock is off.

## Time Zone




The router does not have a real time clock on board; instead, it uses the simple network time protocol (SNTP) to get the current time from the SNTP server in outside network. Please choose your local time zone and click Apply button. You will get the correct time information after you really establish a connection to Internet. The current time of selected time zone will be shown in the Status – System Window.

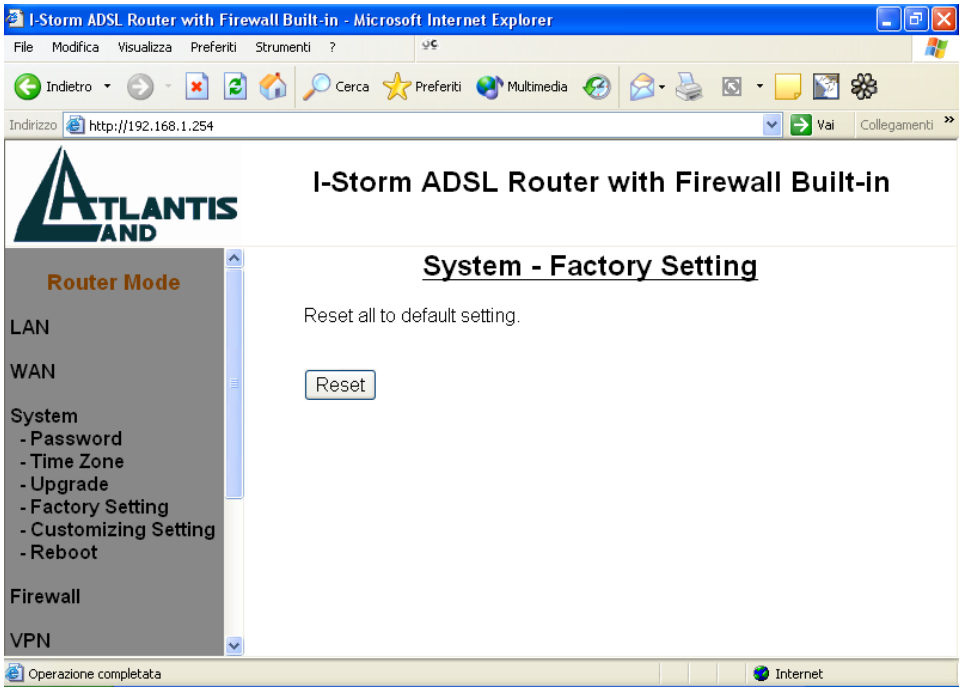
## Upgrade




To upgrade the firmware of I-STORM ADSL ROUTER , you should download or copy the firmware to your local environment first. Press the **"Browse…"** button to specify the path of the firmware file.

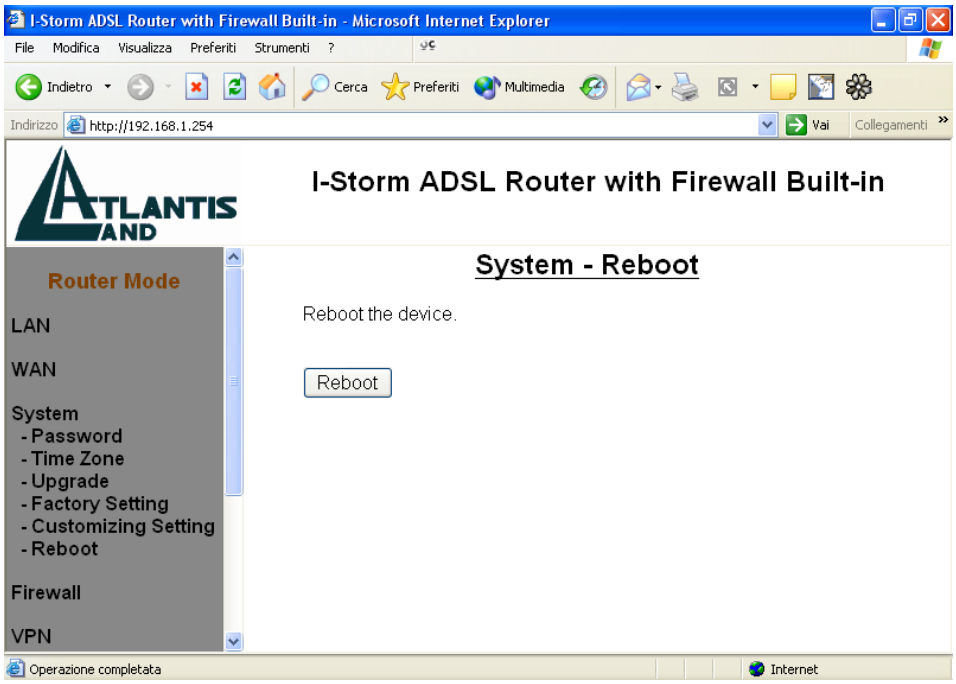
Then, click **"Upgrade"** to start upgrading. When the procedure is completed, the router will reset automatically to make the new firmware work.

## Factory Setting




If for any reason you have to reset this I-STORM ADSL ROUTER factory default settings, be careful that the current settings will be lost and the settings are reset back to its default state. The factory default values is detailed in ***section 3.2 ''Factory Default Settings''.***

## Reboot



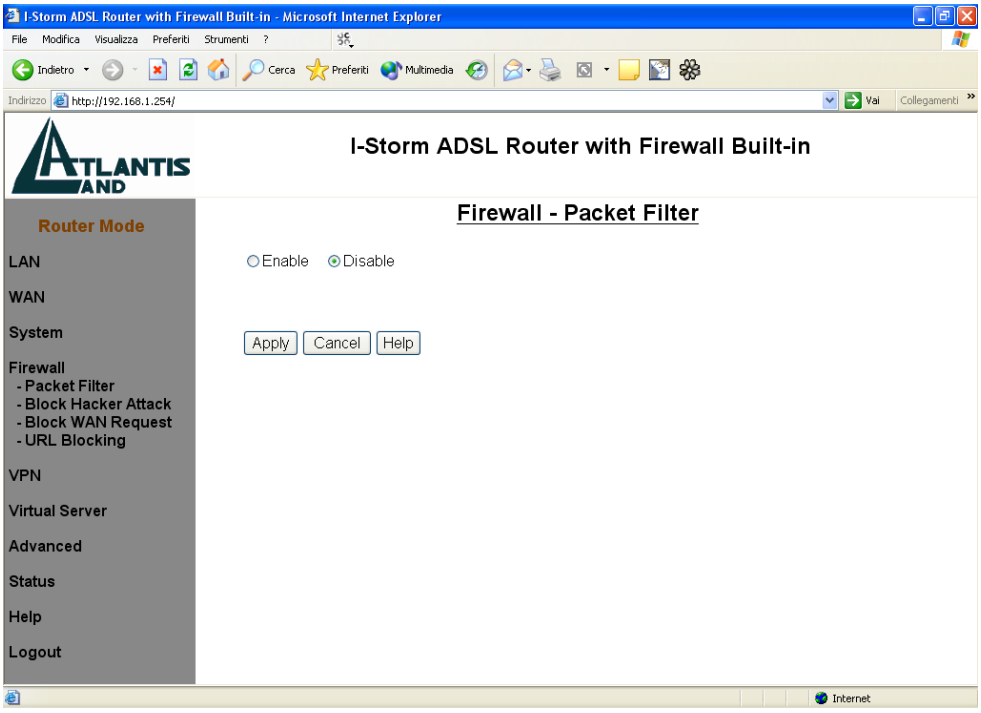

In case the device stops responding correctly or in some other way stops functioning, you can perform the reboot. Your setting won't be changed. Performing the reboot, click on the **Reboot**

button. Each time you reboot your I-STORM ADSL ROUTER , the following figure will appear. Please wait 25 seconds for auto-reconnection.

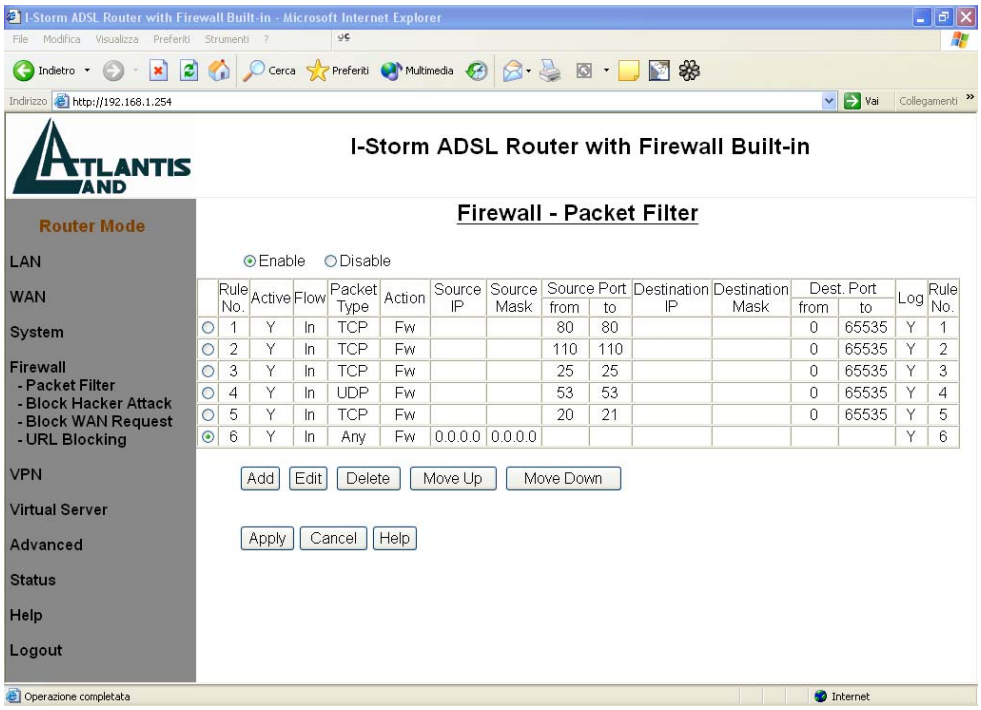
### 3.4.4 Firewall

User can decide to enable this firewall function including Packet Filter, Block Hacker Attack, and Block WAN request features for better security control or not. But be noted, it wastes network processor computation power. The performance will be lower about 5% to 10%. More firewall features will be added continually, please visit our web site to download latest firmware.

## Packet Filter




Packet filtering function enables you to configure your ADSL Router to block specified internal/external user (**IP address**) from Internet access, or you can disable specific service request (**Port number**) to /from Internet. You must check the **"Enable"** radio button to make the following figure appear for further configuration.

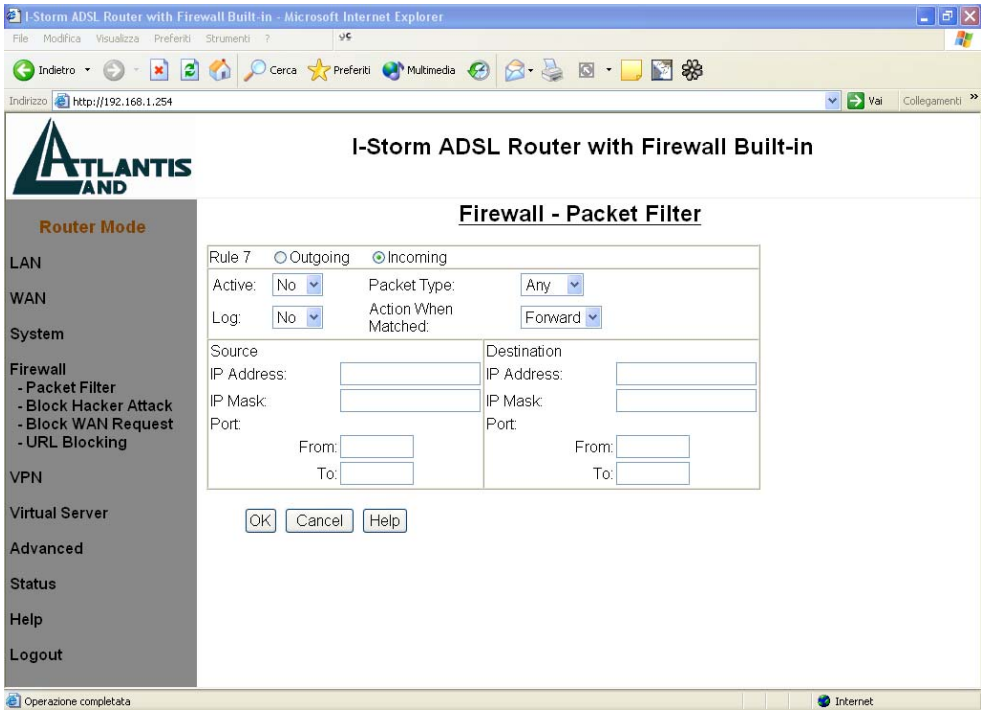



This configuration program allows you to set up different filter rules up to 20 for different users based on their IP addresses or their network Port number. The relationship among all filters is **"or"** operation, which means the router checks these different filter rules one by one, stating from the first rule. As long as one of the rules is satisfied, the specified action will be taken.
**Add:** Click this button to add a new packet filter rule. After click, next figure will appear.

**Edit:** Check the Rule No. you want to edit. Then, click the "Edit" button.

**Delete:** Check the Rule No. you want to delete. Then, click the "Delete" button.

**Move Up/Move Down:** Check the Rule No. you want to alter. Then, click the "Move Up" or "Move Down" button to change its sequence.




⊙ **Outgoing** ⊙ **Incoming:** Determine whether the rule is for outgoing packets or for incoming packets.

**Active:** Choose "Yes" to enable the rule, or choose "No" to disable the rule.

**Packet Type:** Specify the packet type (TCP, UDP, ICMP or any) that the rule will be applied to.

Select **TCP** if you want to scope for the connection-based application service on the remote server using the port number. Or select **UDP** if you want to scope for the connectionless application service on the remote server using the port number.

**Log:** Choose "Yes" if you want to generate logs when the filer rule is applied to a packet.

**Action When Matched:** If any packet matches this filter rule, forward or drop this packet.

**Source IP Address:** Enter the incoming or outgoing packet's source IP address.

**Source IP Mask:** Enter the incoming or outgoing packet's source IP Subnet Mask.

**Source Port:** Check the TCP or UDP packet's source port number(s).

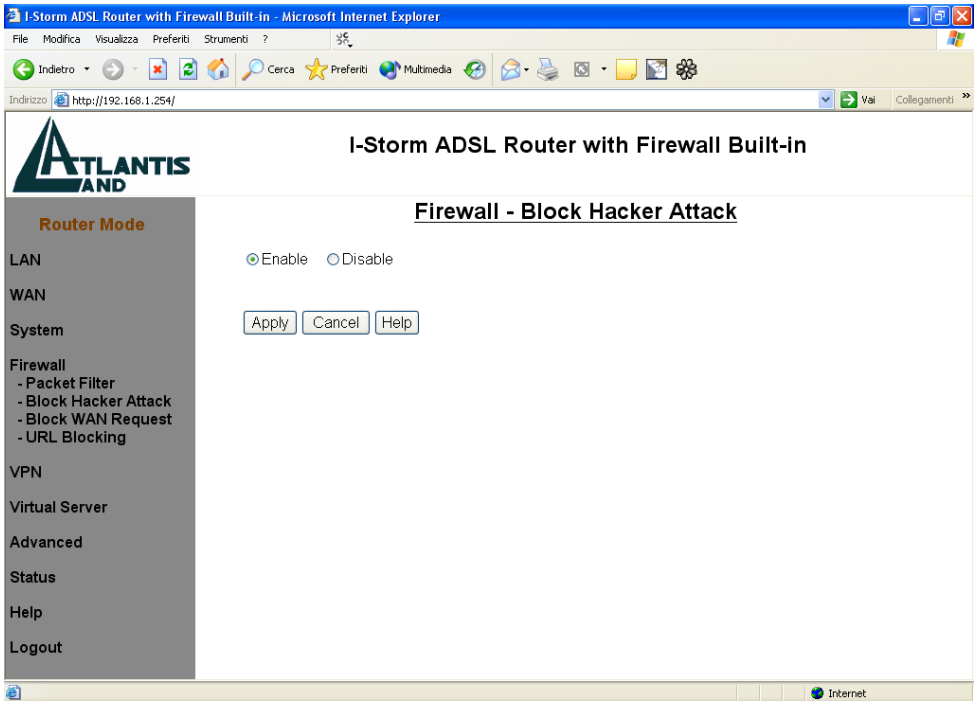
**Destination IP Address:** Enter the incoming or outgoing packet's destination IP address.

**Destination IP Mask:** Enter the incoming or outgoing packet's destination IP Subnet Mask.

**Destination Port:** Check the TCP or UDP packet's destination port number(s).

*If the DHCP server option is enabled, you have to be very careful in assigning the IP addresses of filtered private IP range in order to avoid conflicts. Because you do not know which PC in LAN is assigned to which IP address. The easy way is that the filtered IP address is assigned to the specific PC that you do not want this PC to access outside resource such as Internet. You configure the filtered IP address manually to this PC, but it is still in the same subnet with the router.*

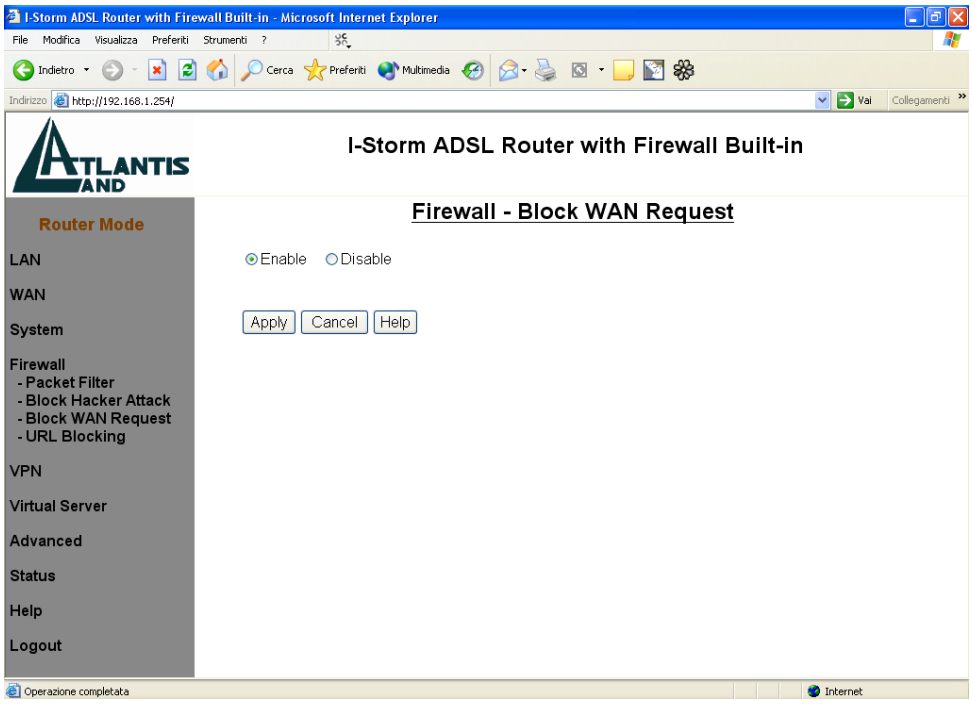
## Block Hacker Attack




The I-STORM ADSL ROUTER can automatically detect and block the DoS (Denial of Service) attack if user enables this function. This kind of attack is not to achieve the confidential data of this network; instead, it aims to crush specific equipment or the entire network. If this happens, the users will not be able to access the network resources. There are nine hacker patterns implemented in total, including

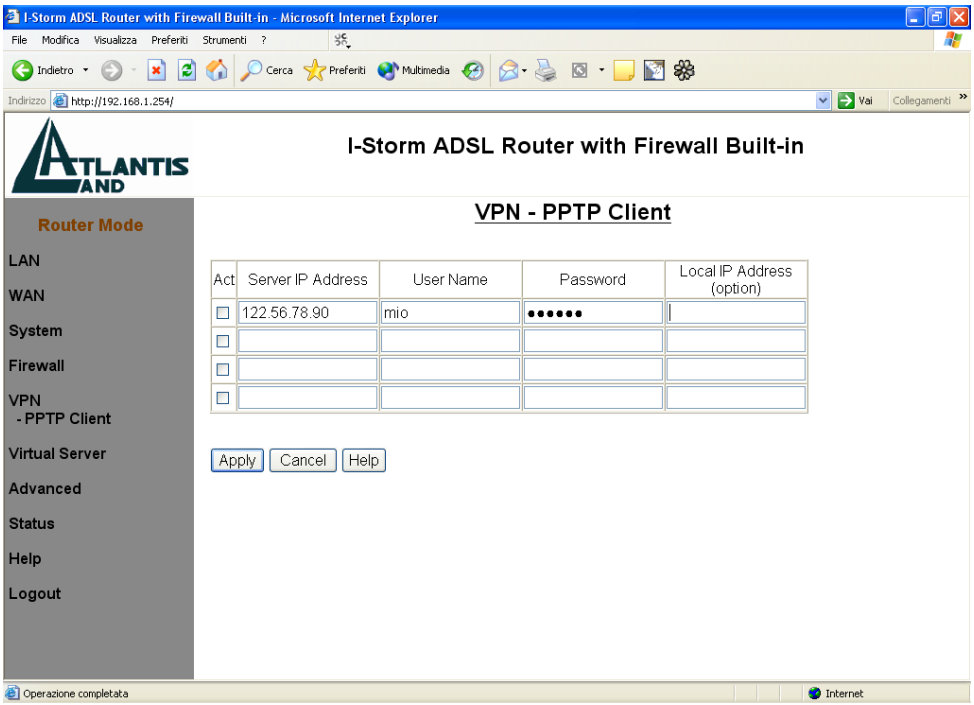
- **IP Spoofing**
- **Ping of Death (Length > 65535)**
- **Land Attack (Same source / destination IP address)**
- **IP with zero length**
- **Sync flooding**
- **Smurf Attack (ICMP Echo with x.x.x.0 or x.x.x.255)**
- **Snork Attack**
- **UDP port loop-back**
- **TCP NULL scan**

## Block WAN Request/URL Filter




Check “Enable” if you want to exclude outside PING from reaching on this router.

## 3.4.5 VPN




VPN (Virtual Private Network) is a secured and Internet protocol to allow users to access the company internal network resources outside the company network. If you want to make this function take effect, check the “Enable” button. Hence, the following fields will be activated.

**Username:** Enter the username. Maximum input is **63** alphanumeric characters (case sensitive).

**Password:** Enter the password. Maximum input is **63** alphanumeric characters (case sensitive).

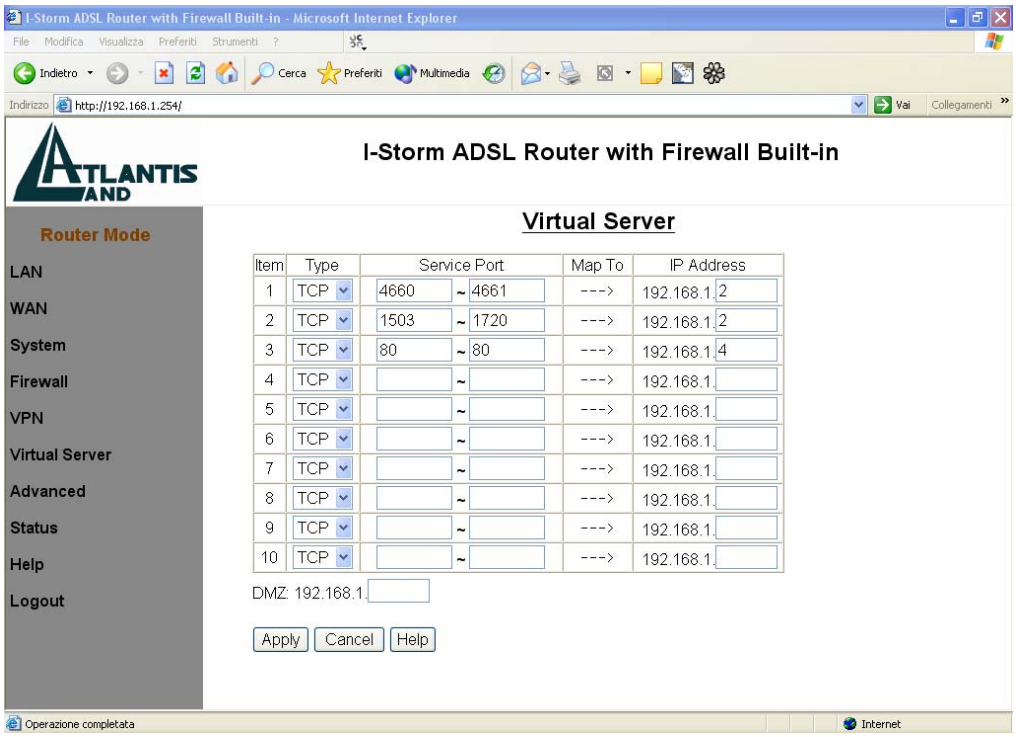
**Server IP Address:** Enter the IP address of the PPTP Server.

You can obtain Domain Name System (DNS) IP address automatically if PPTP server provides it when you logon. Or your remote PPTP server may provide you with an IP address of DNS. If this is the case, you must enter the DNS IP address provided. Please refer to WAN-DNS section for more details. When you establish a VPN tunnel, the active DNS server is this one listed here, not that one listed in WAN-DNS section. Because you have established the tunnel with remote PPTP server, your network is connected to remote network directly. All the outgoing packets from your network will be sent to the remote network; therefore, you have to set DNS provided by remote network for domain name and IP address conversion.

This VPN function can connect and establish a PPTP tunnel to remote PPTP server on WAN. So, the router must connect to ISP first, and then use the PPTP client to establish a VPN connection.

*If you have disabled the I-STORM ADSL ROUTER ’s NAT option in the WAN-ISP section, this VPN function will hence be invalid.*

## 3.4.6 Virtual Server




Being a natural Internet firewall, I-STORM ADSL ROUTER protects your network from being accessed by outside users. When it needs to allow outside users to access internal servers, e.g. Web server, FTP server, E-mail server or News server, this product can act as a virtual server. You can set up a local server with specific port number that stands for the service, e.g. Web (80), FTP (21), Telnet (23), SMTP (25), POP3 (110), DNS (53), ECHO (7), NNTP (119). When an incoming access request to the router for specified port is received, it will be forwarded to the corresponding internal server.

For example, if you set the Service Port number 80 (Web) to be mapped to the IP Address 192.168.1.2, then all the http requests from outside users will be forwarded to the local server with IP address of 192.168.1.2.

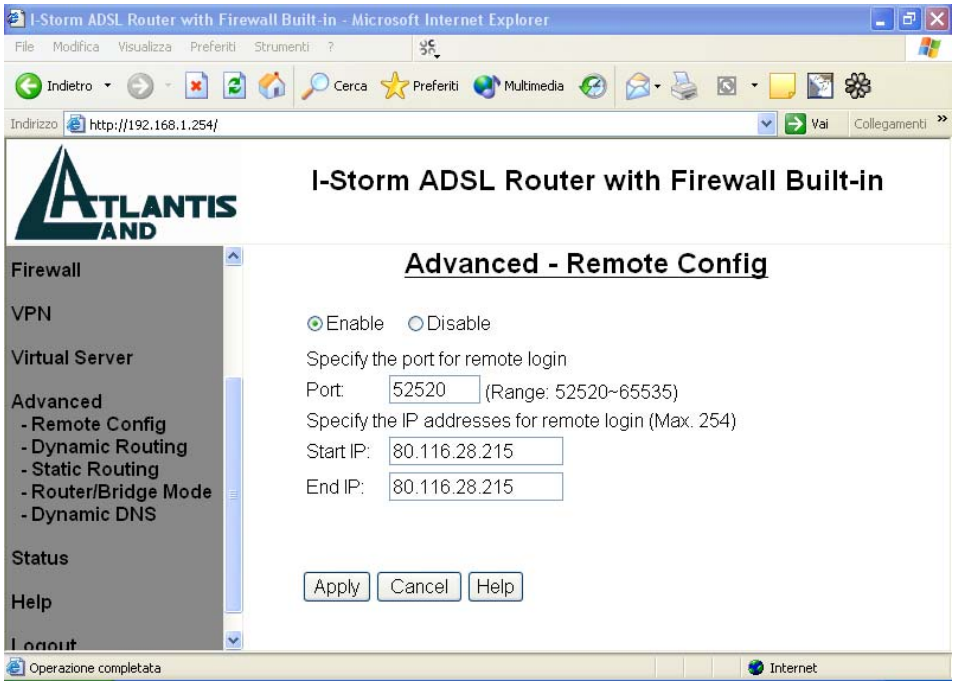
**DMZ:** Regarding the DMZ Host, it is a local computer exposed to the Internet. Therefore, an incoming packet will be checked by Firewall and NAT algorithms in I-STORM ADSL ROUTER , then passed to the DMZ host when packet is not sent by hacker and not limited by virtual server list.

*If you have disabled the I-STORM ADSL ROUTER 's NAT option in the WAN-ISP section, this Virtual Server function will hence be invalid.*

*If the DHCP server option is enabled, you have to be very careful in assigning the IP addresses of the virtual servers in order to avoid conflicts. The easy way is that the IP address assigned to each virtual server should not fall into the range of IP addresses that are to be issued by the DHCP server. You configure the virtual server IP address manually, but it is still in the same subnet with the router.*

## 3.4.7 Advanced

### Remote Config

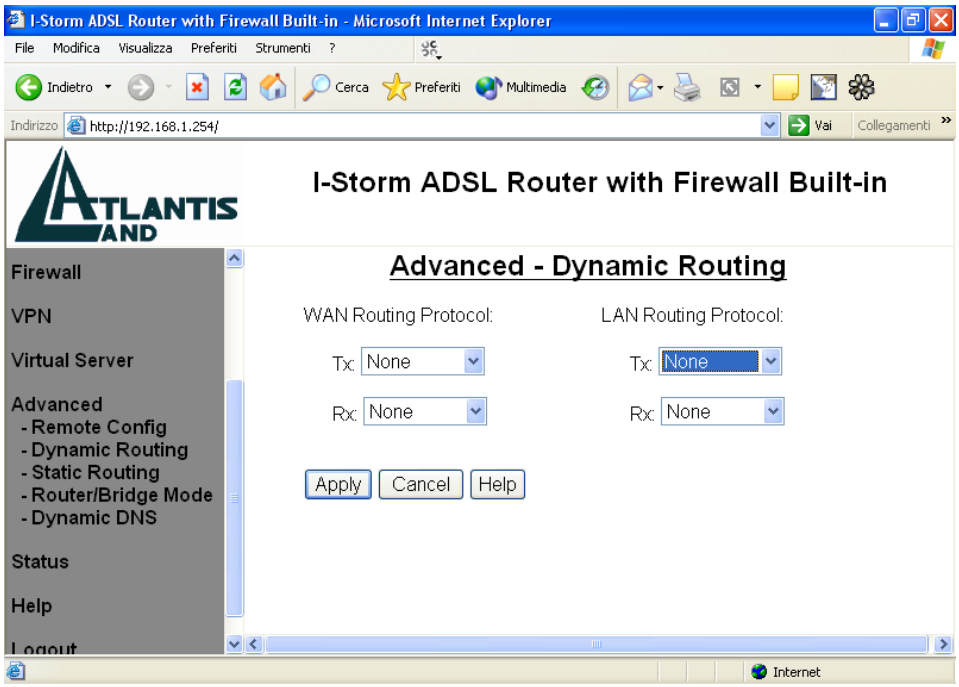



Check "Enable" if you want to configure your I-STORM ADSL ROUTER from any PC in the Internet world with a web browser.

To configure this router remotely, use the URL *"http://WAN IP address:33659"* where WAN IP address is the IP address of the router's WAN port. You can find the value in the System Status. **"33659"** is the default port number; please use your own port if you change the default value.

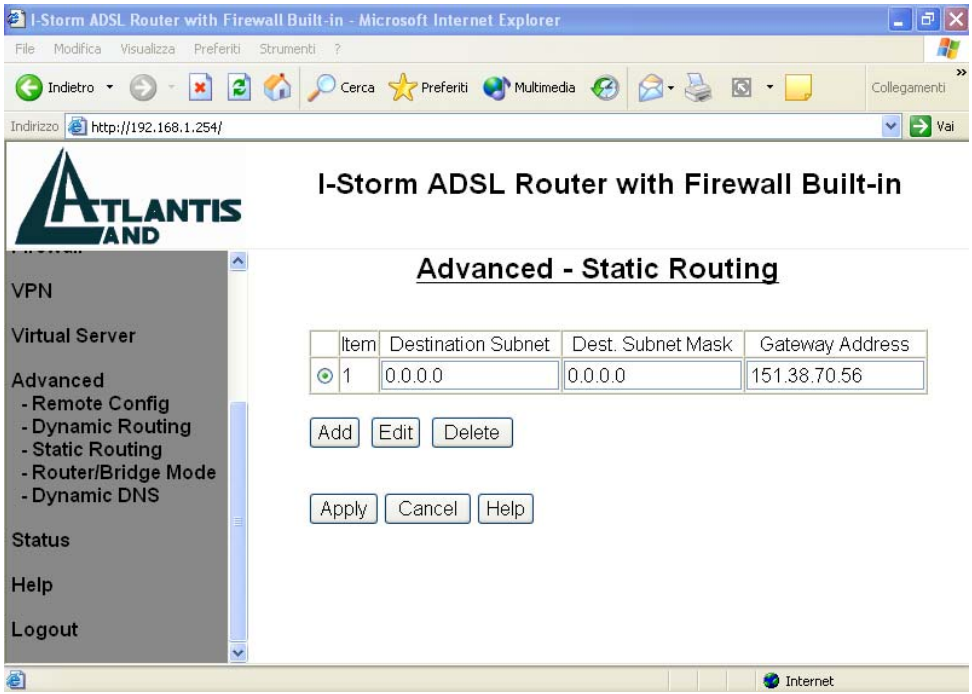
*If the NAT function is disabled, the URL should be "http://LAN IP address" where LAN IP address is the IP address of the router's LAN port. You can find the value in the System Status.*

## Dynamic Routing




The dynamic routing function of the router can be used to allow the router to automatically adjust to physical changes in the network's layout. The router uses the dynamic RIP protocol. It regularly broadcasts routing information to other routers on the network. Choose the protocol ─ RIP1, RIP2, or RIP1+RIP2 ─ you want the router to use to transmit / receive data on / from the network.

## Static Routing

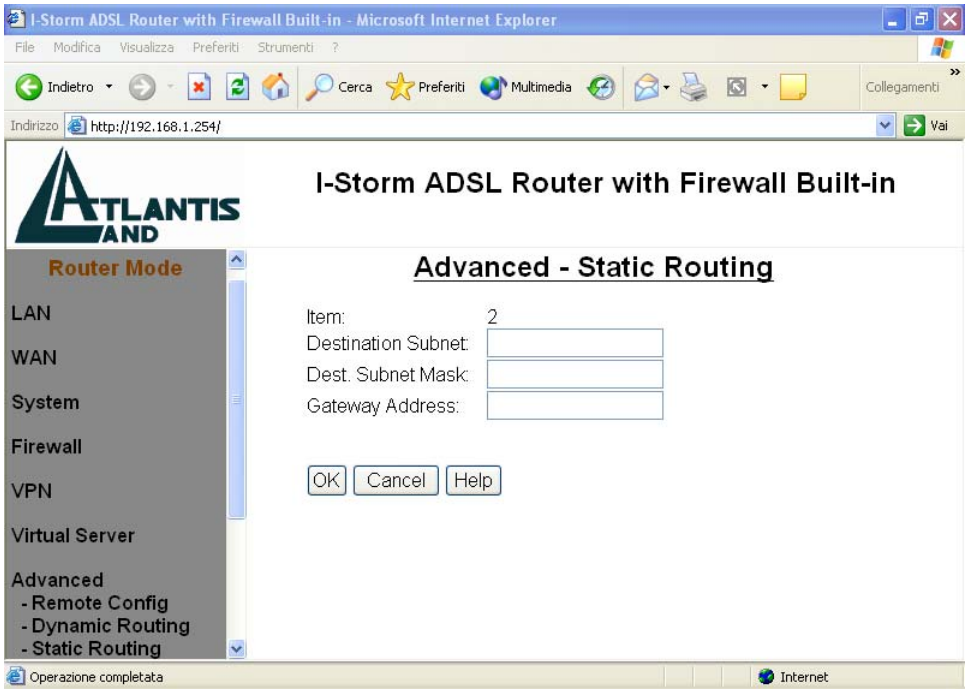



If you have another router with a LAN-to-LAN connection, you may create a static routing on the router that is the gateway to Internet. After you check the "Enable" radio button, the following figure will appear.

**Add:** Click this button to add a new static routing. When you click this button, the next figure appears.

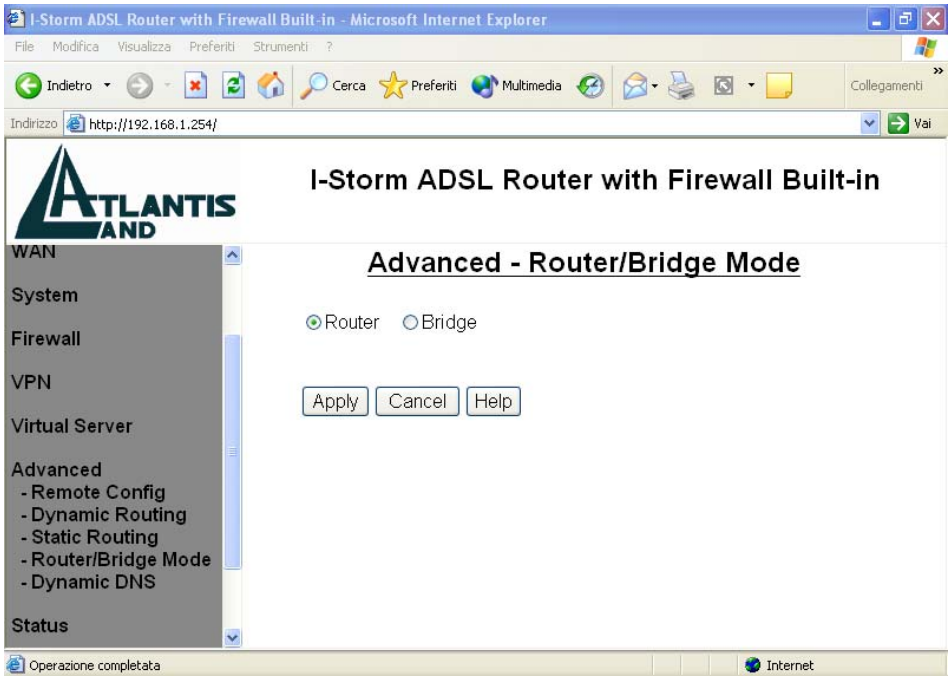
**Edit:** Check the item you want to edit. Then, click the "Edit" button.

**Delete:** Check the item you want to delete. Then, click the "Delete" button.




**Destination Subnet / Subnet Mask / Gateway Address:** Fill in these fields required by this Static Routing function.

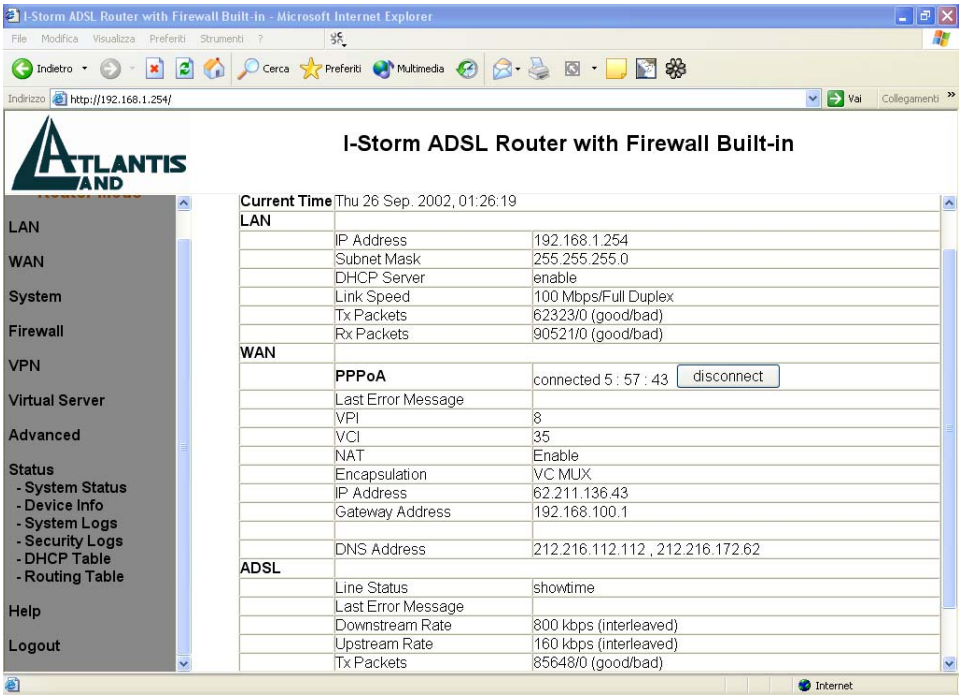
## Router/Bridge Mode




Switch off between router and bridge mode.

## 3.4.8 Status

### System Status



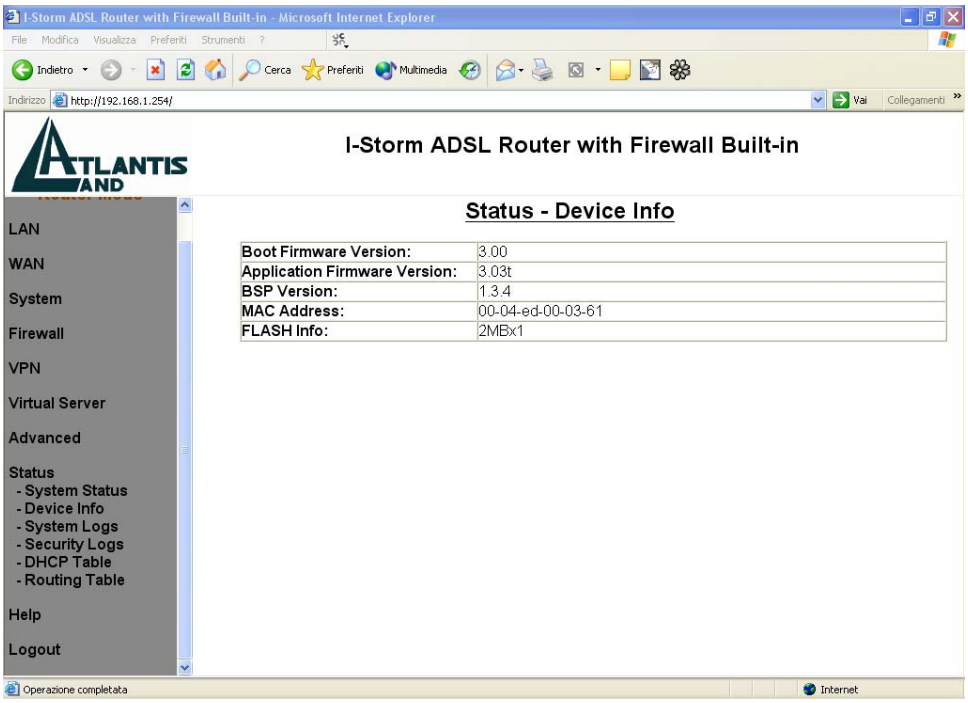

Display the current LAN, WAN, and ADSL connection status.

The first line under the WAN segment displays the WAN-ISP protocol you set. You can see the status of connection from its right-side column.

As for “PPPoE” and “PPPoA” protocol, the right column seems some kind different. There is a button beside the connection status. When the PPPoE/PPPoA status is disconnected, you can click the **“Connect”** button to logon your ISP. Whenever you want to disconnect from your ISP under connected status, just click the **“Disconnect”** button.

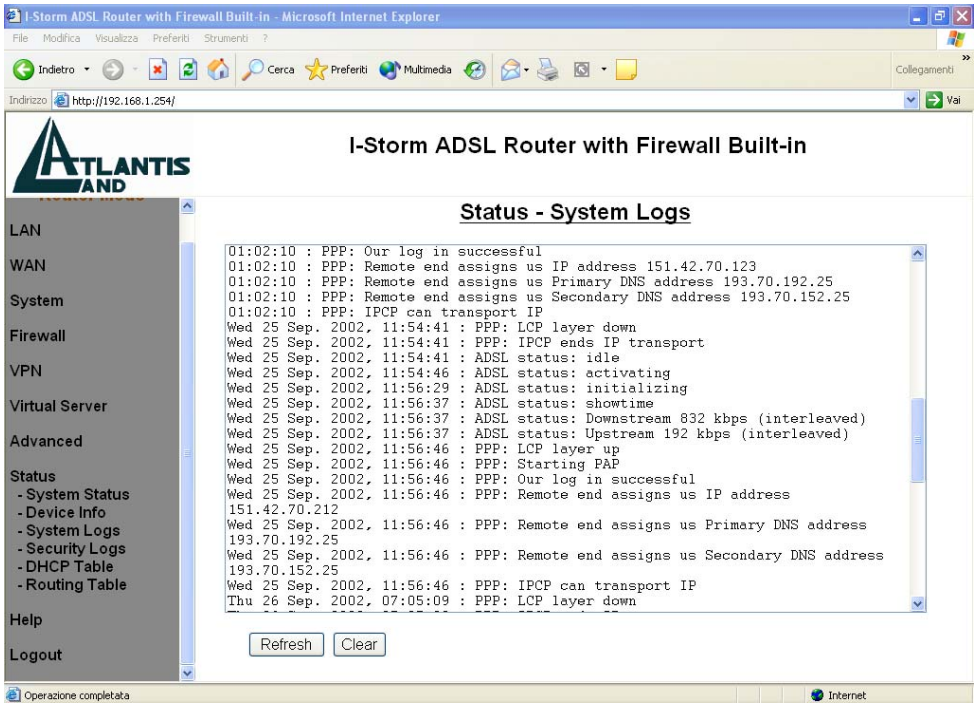
This page will refresh automatically every 15 seconds, which enables you to get the most updated status of your system. You can also click the **“Refresh”** button to get the latest information of system status manually.

## Device Info




Display the current Firmware version and MAC address of your I-STORM ADSL ROUTER .

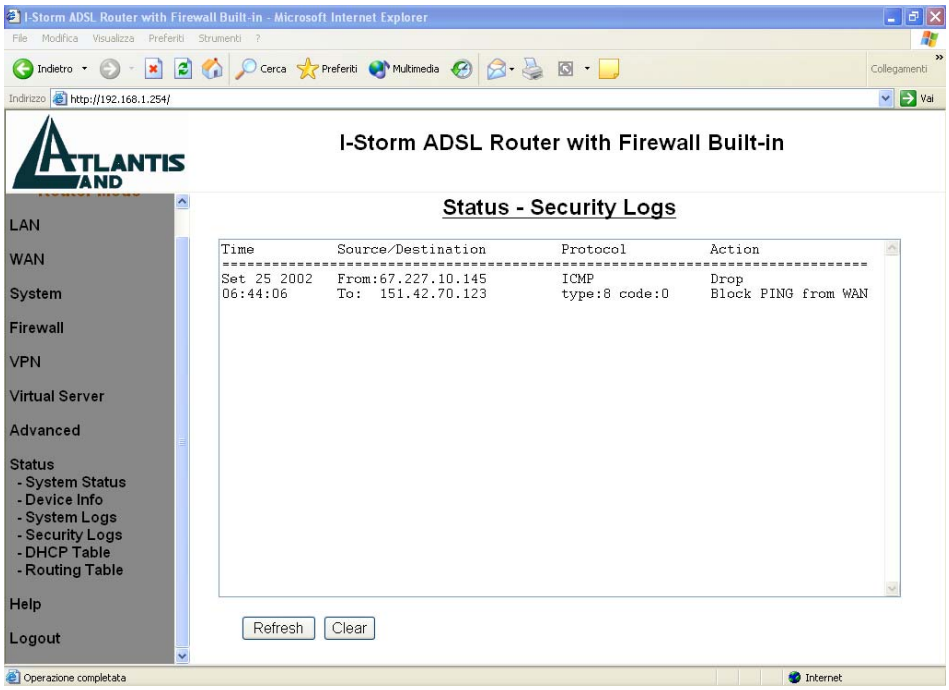
## System Logs




Display the system logs cumulated till the present time. You can trace the historical information through this function.

**Refresh / Clear:** Click **"Refresh"** to get the latest information of system logs, or click **"Clear"** to eliminate all the system logs showed on this screen.

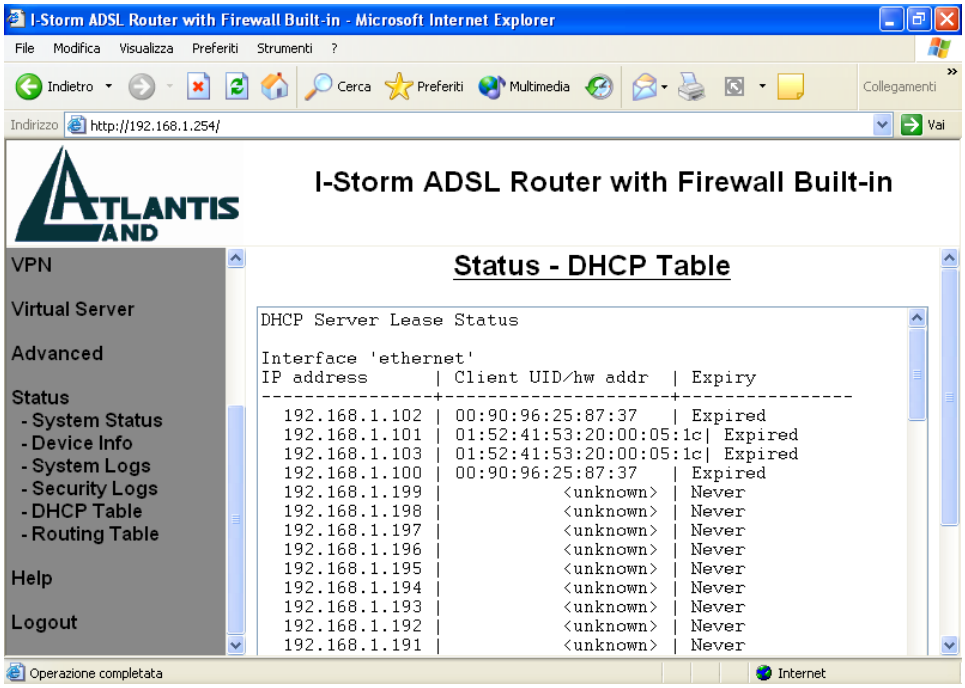
## Security Logs




Display the information of security logs. If hacker attacks your sever, he will be isolated by the firewall function and the router will record related information. Hence, you know where the hacker comes from.

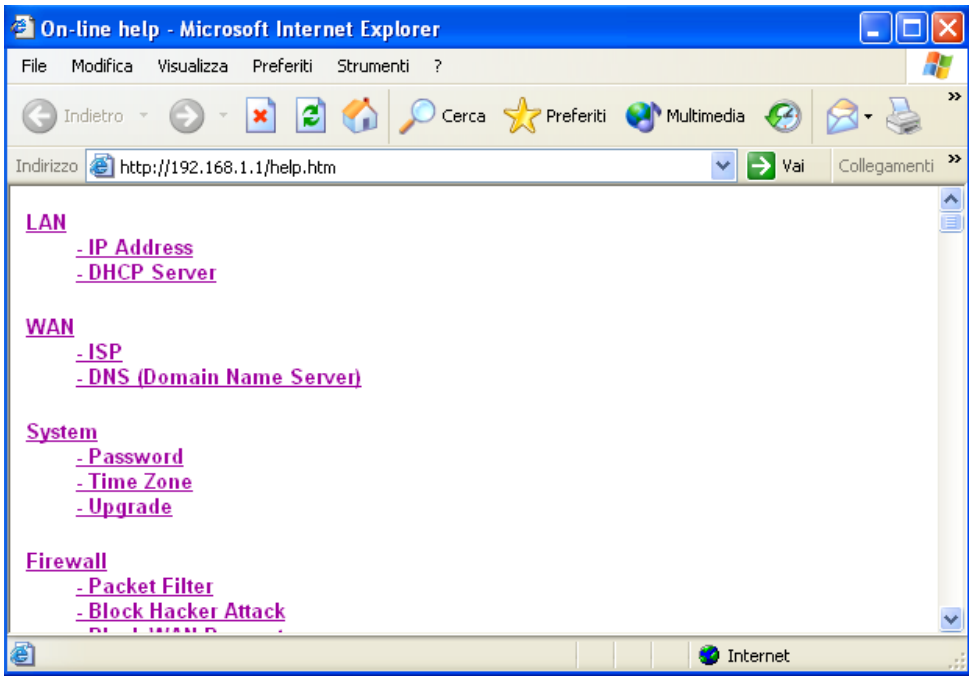
**Refresh:** Click **"Refresh"** to get the latest information of system logs.

## DHCP Table




Display the IP addresses allocation information in DHCP server. Please refer to the ***"DHCP Server" part in section 3.4.1.***

### 3.4.9 Help/ Logout



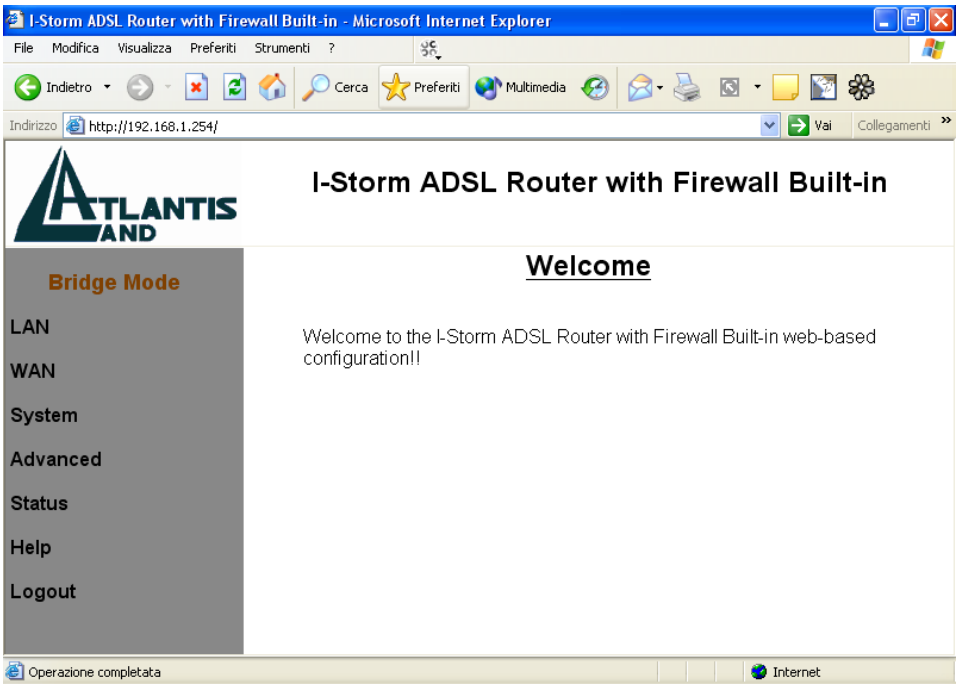

After click on the hyperlink of "Help" in the left pane, the following html page will jump out. This page would be a good reference as you precede the configuration.

## 3.5 Configuring with Web Browser in Bridge Mode

Open the web browser, enter the local port IP address of this I-STORM ADSL ROUTER , which default at **192.168.1.254**, and click "**Go**" to get the login page.

No user name is required. The default password is left blank. If you have set a password, enter that and click **"OK"** to continue.

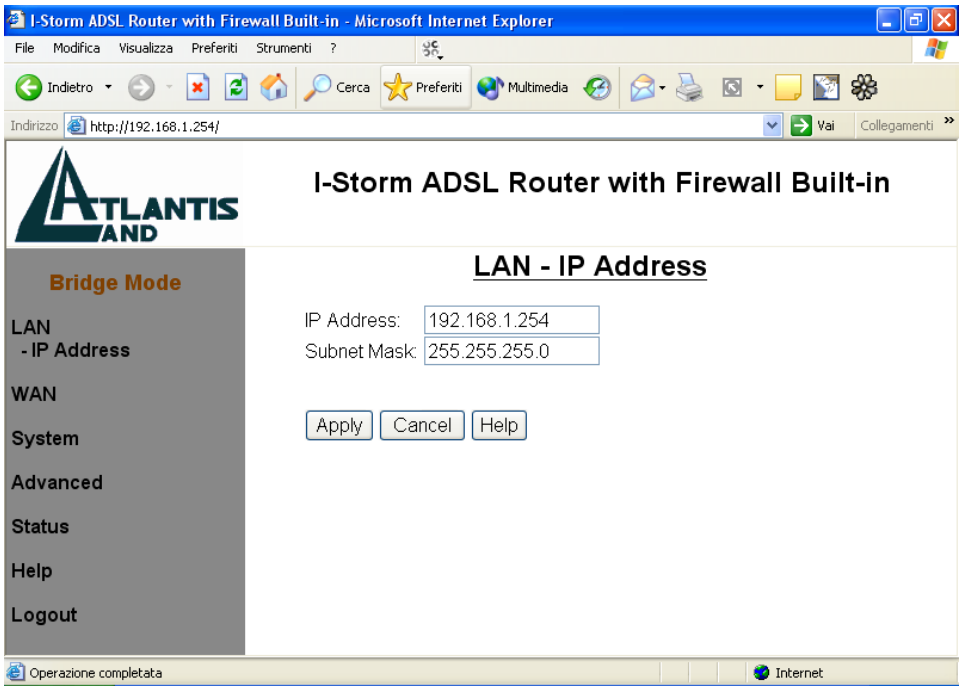
At the configuration homepage, the left navigation pane where bookmarks are provided links you directly to the desired setup page, including **LAN, WAN, System, Advanced, Status, Help**.




Click on the desired item to expand the page in the main navigation pane.

## 3.5.1 LAN

This screen contains settings for LAN interface attached to the LAN port.



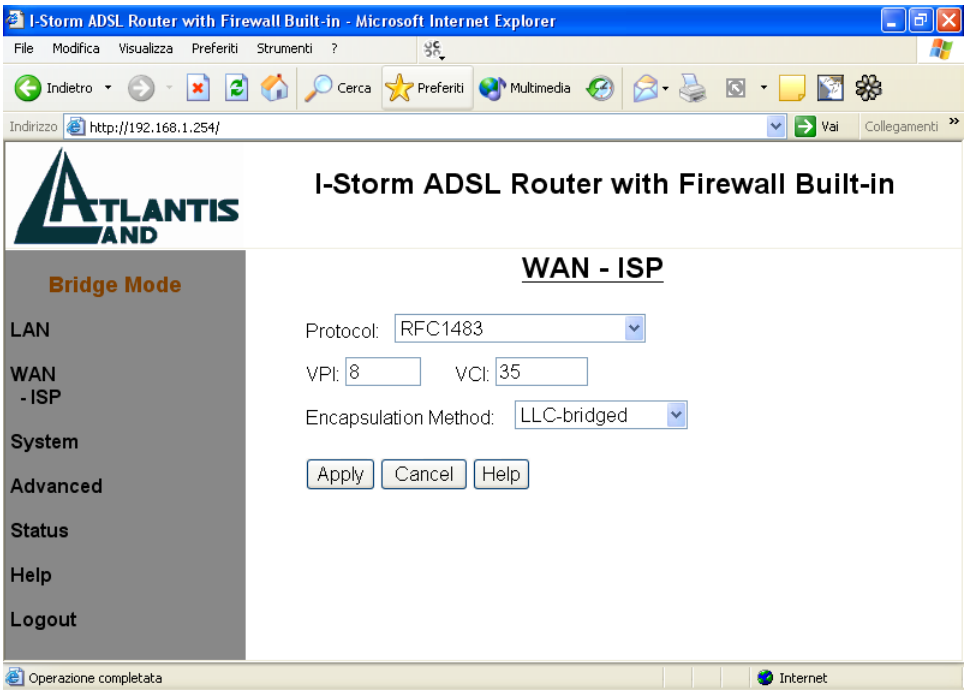

**IP Address:** Default at 192.168.1.254.

This is the device IP address in LAN site. If you plan to change it to another IP address to a different range of IP subnet. Please make sure your PC is also located at the same IP subnet. Otherwise, you may not be able to access the I-STORM ADSL ROUTER .

**Subnet Mask:** Default at 255.255.255.0.

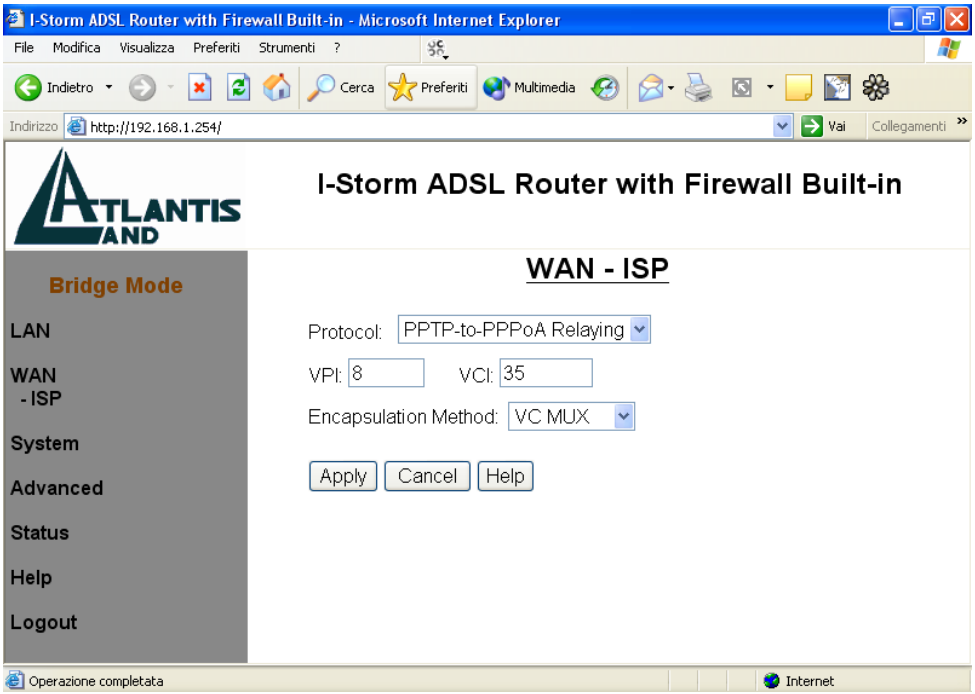
### 3.5.2 WAN

The screen below contains settings for the WAN interface toward Internet.



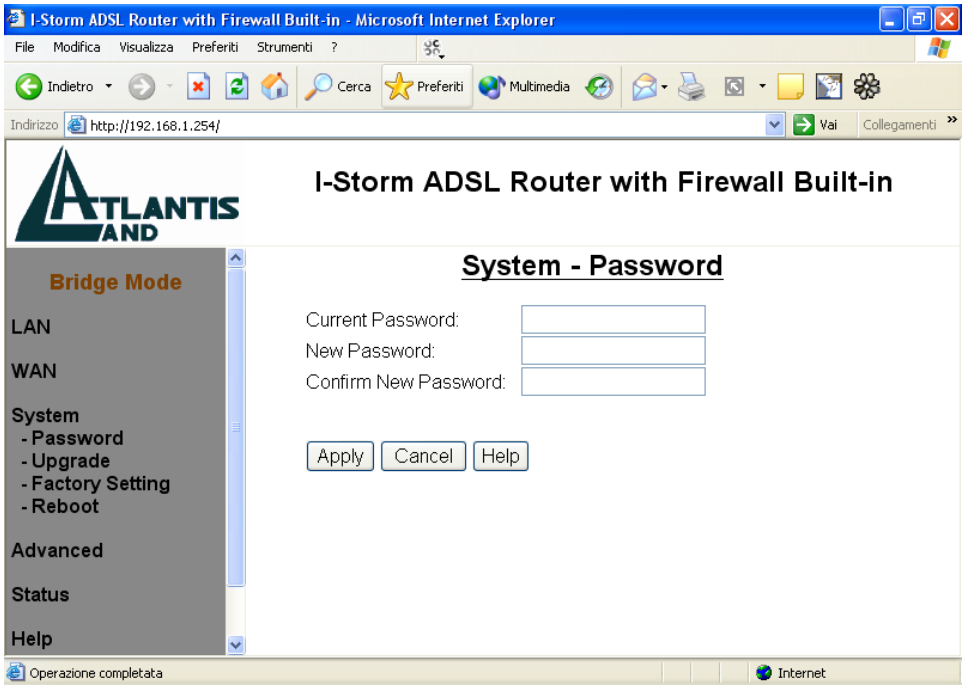

**Protocol:** There are two ways ─ **RFC1483** and **PPTP-to-PPPoA Relaying** ─ for the device to have a public IP address. You have to check with your ISP about which way is adopted.
**VPI/VCI:** Consult the telephone company to get the Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) numbers. The valid range for the VPI is 0 to 255 and for the VCI is 32 to 65535. The default value VPI is 0 and VCI is 32.

**Encapsulation Method:** Be sure to use the encapsulation method (LLC/SNAP or VC MUX) required by your ISP.



## 3.5.3 System

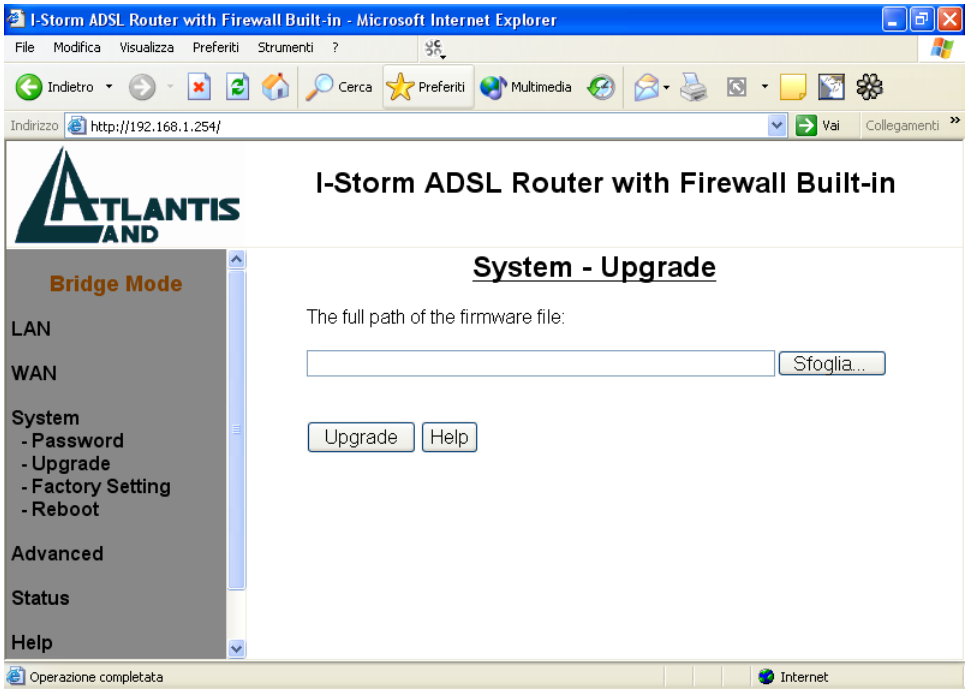
### Password




In factory setting, there is no password protection when user accesses this ADSL Router. It is recommended that you change the default password <BLANK> to ensure that someone cannot adjust your settings without your permission. <BLANK> means there is no password. Every time you change your password, please record the password and keep it at a safe place.

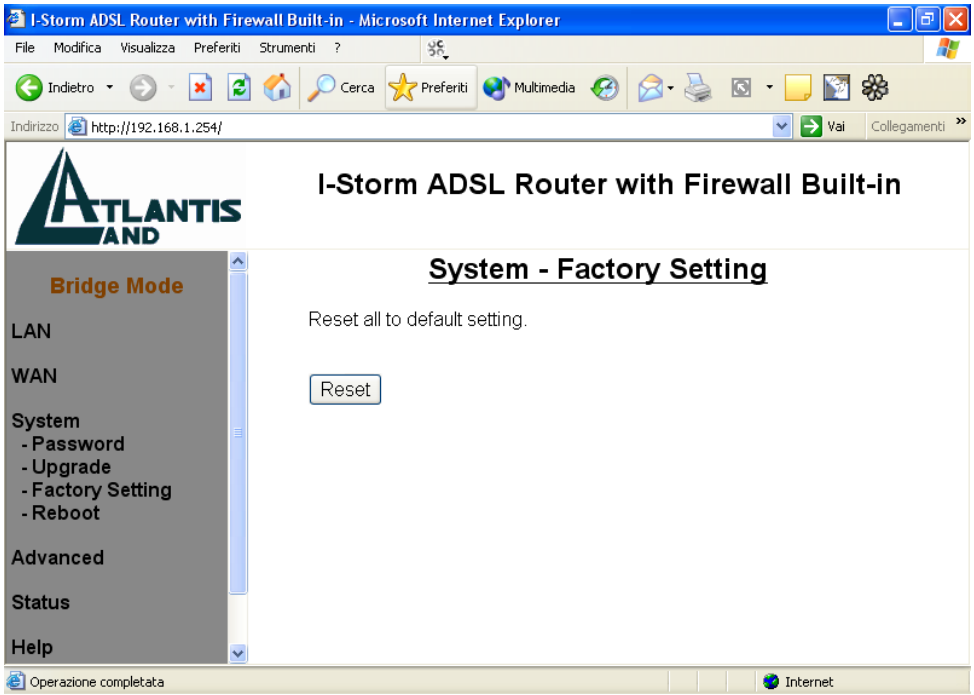
Please note that the maximum input for password is **8** alphanumeric characters long. Since it is **case sensitive**, be sure that you remember whether a letter is in upper or lower case and make sure that your Caps Lock is off.

## Upgrade



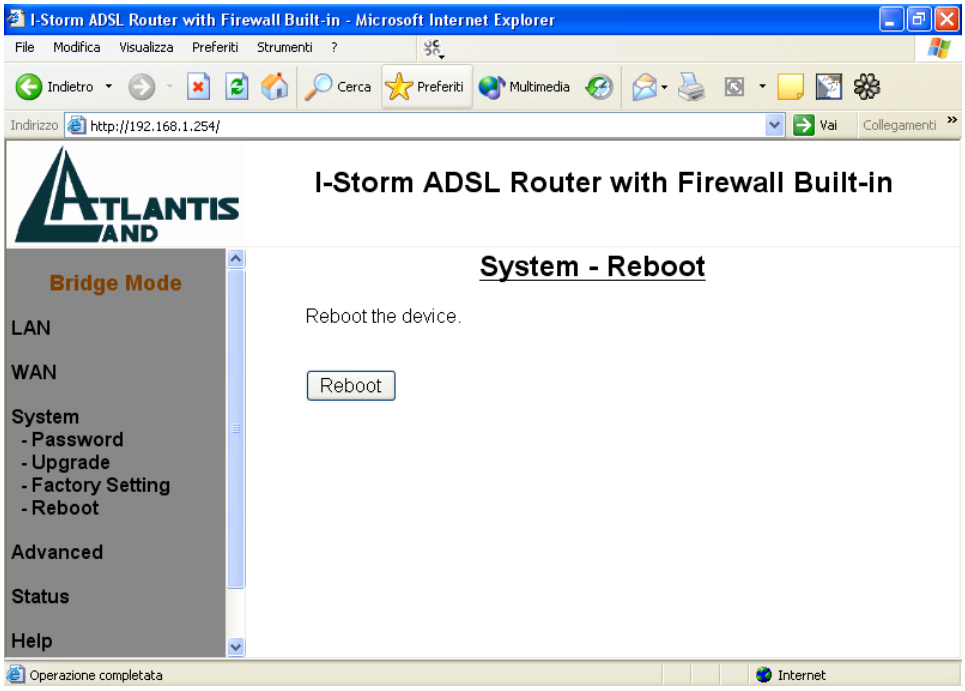

To upgrade the firmware of I-STORM ADSL ROUTER , you should download (from www.atlantisland.it) or copy the firmware to your local environment first. Press the **"Browse…"** button to specify the path of the firmware file. Then, click **"Upgrade"** to start upgrading. When the procedure is completed, the bridge will reset automatically to make the new firmware work.

## Factory Setting




If for any reason you have to reset this I-STORM ADSL ROUTER factory default settings, be careful that the current settings will be lost and the settings are reset back to its default state. The factory default values is detailed in ***section 3.2 ''Factory Default Settings''.***

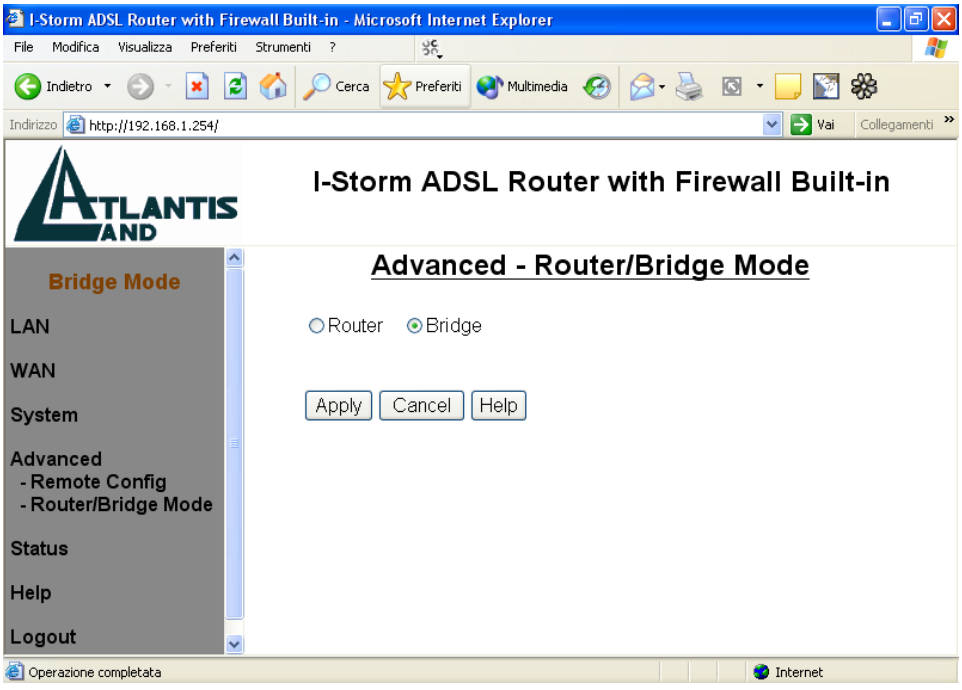
## Reboot




In case the device stops responding correctly or in some other way stops functioning, you can perform the reboot. Your setting won't be changed. Performing the reboot, click on the **Reboot** button. Each time you reboot your I-STORM ADSL ROUTER , the following figure will appear. Please wait 25 seconds for auto-reconnection.

### 3.5.4 Advanced

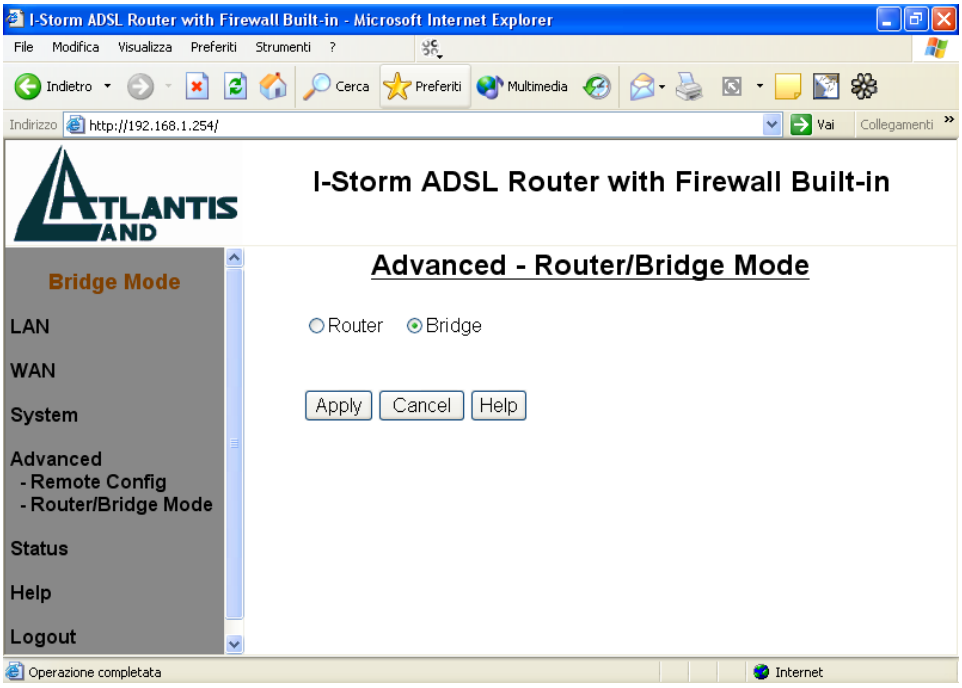
## Remote Config



Check “Enable” if you want to configure your I-STORM ADSL ROUTER from any PC in the Internet world with a web browser.

To configure this device remotely, use the URL *“http://LAN IP address” where LAN IP address is the IP address of the device’s LAN port. You can find the value in the System Status.*

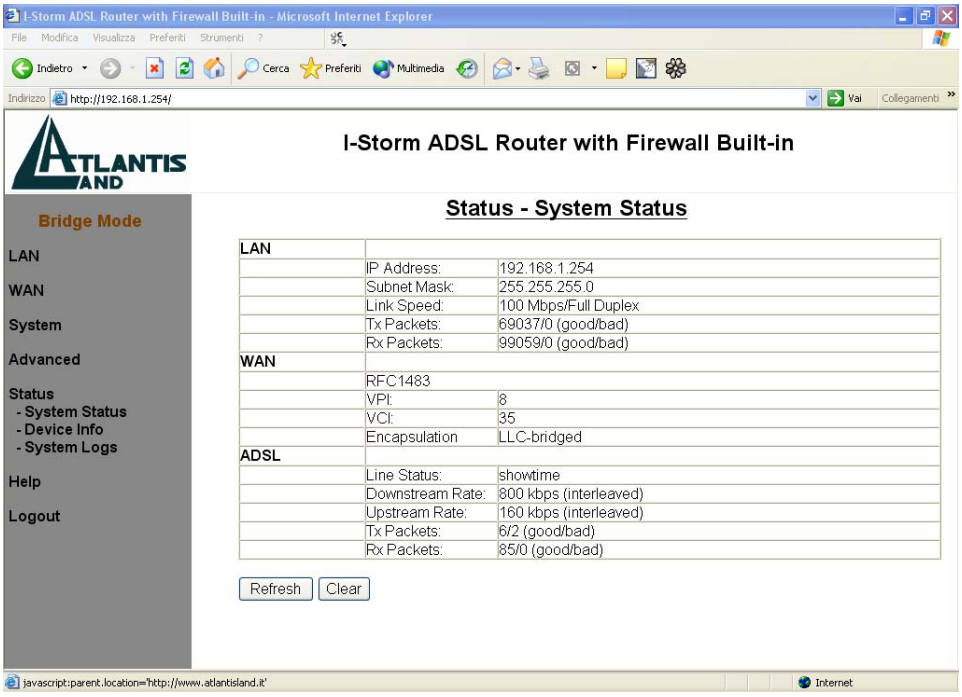
## Router/Bridge Mode




Switch off between router and bridge mode.

## 3.5.5 Status

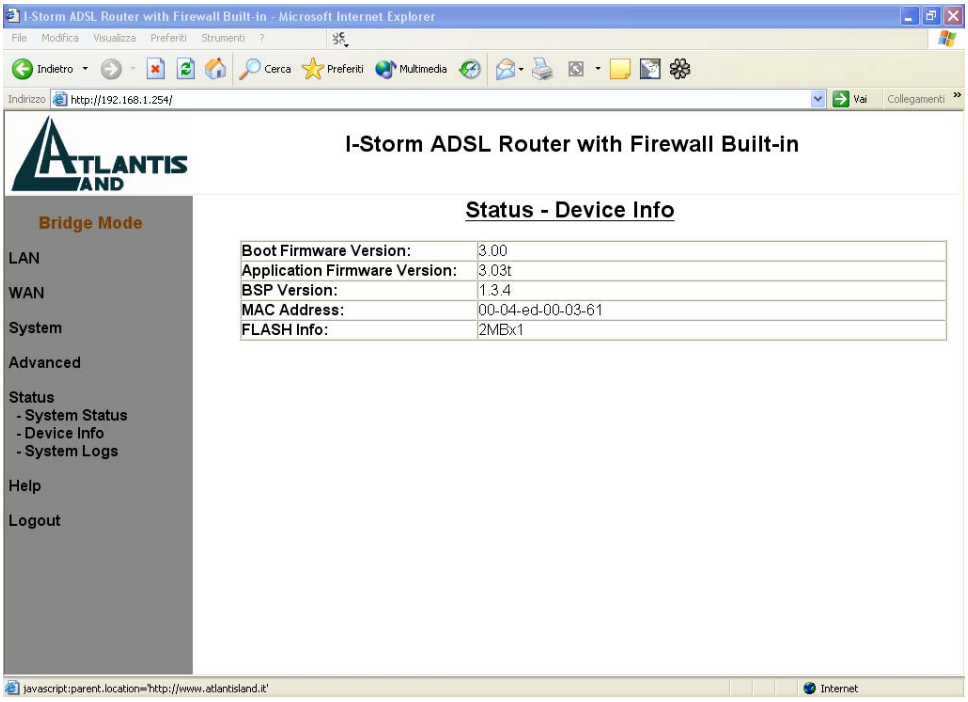
## System Status



Display the current LAN, WAN, and ADSL connection status. The first line under the WAN segment displays the WAN-ISP protocol you set.

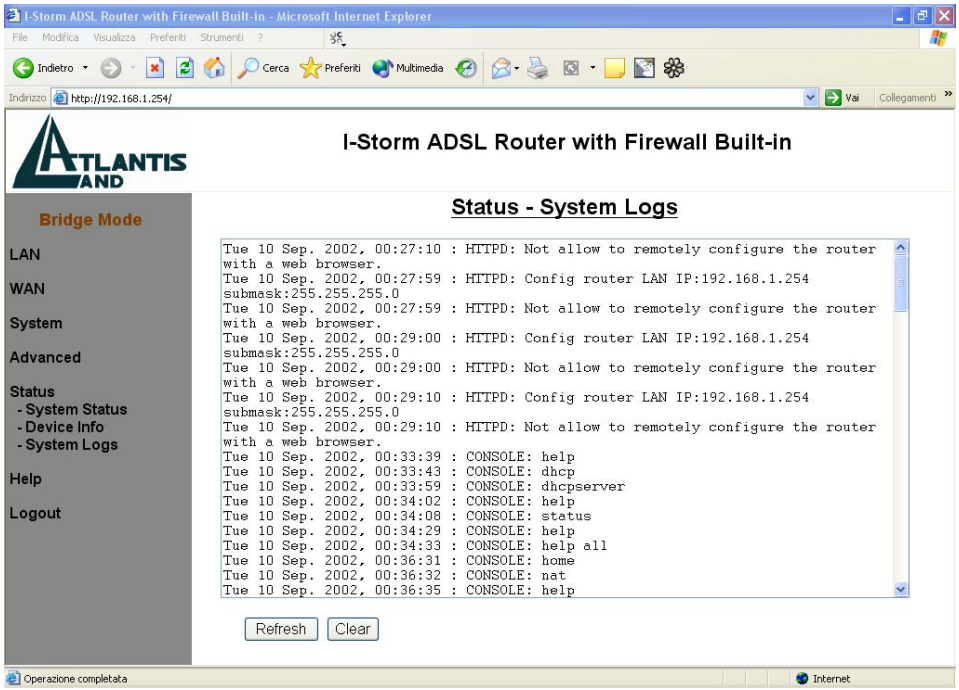
This page will refresh automatically every 15 seconds, which enables you to get the most updated status of your system. You can also click the **"Refresh"** button to get the latest information of system status manually.

## Device Info




Display the current Firmware version and MAC address of your I-STORM ADSL ROUTER .

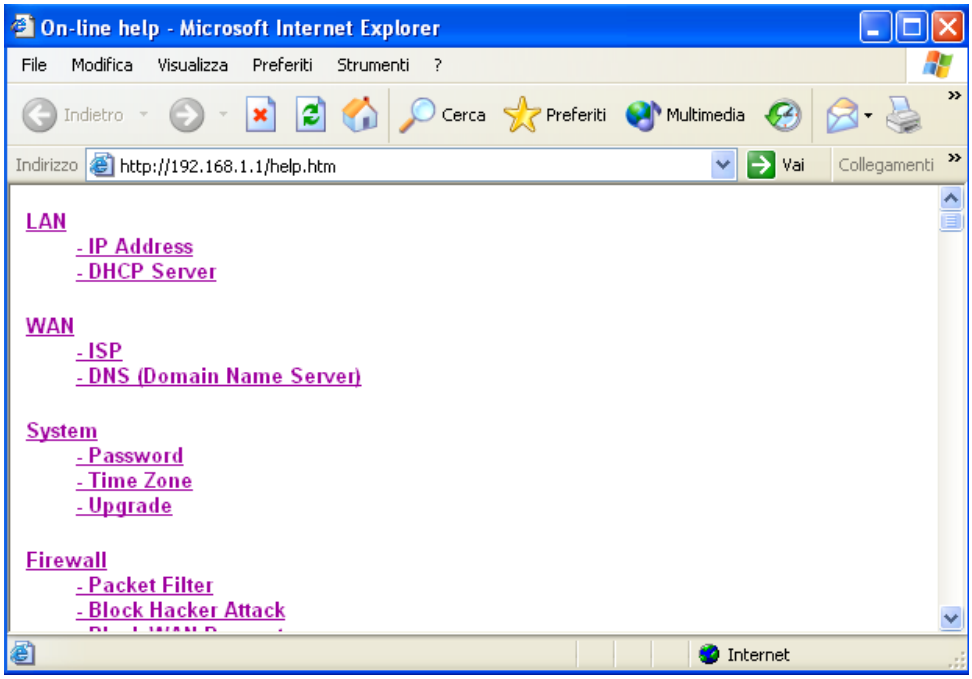
## System Logs




Display the system logs cumulated till the present time. You can trace the historical information through this function.

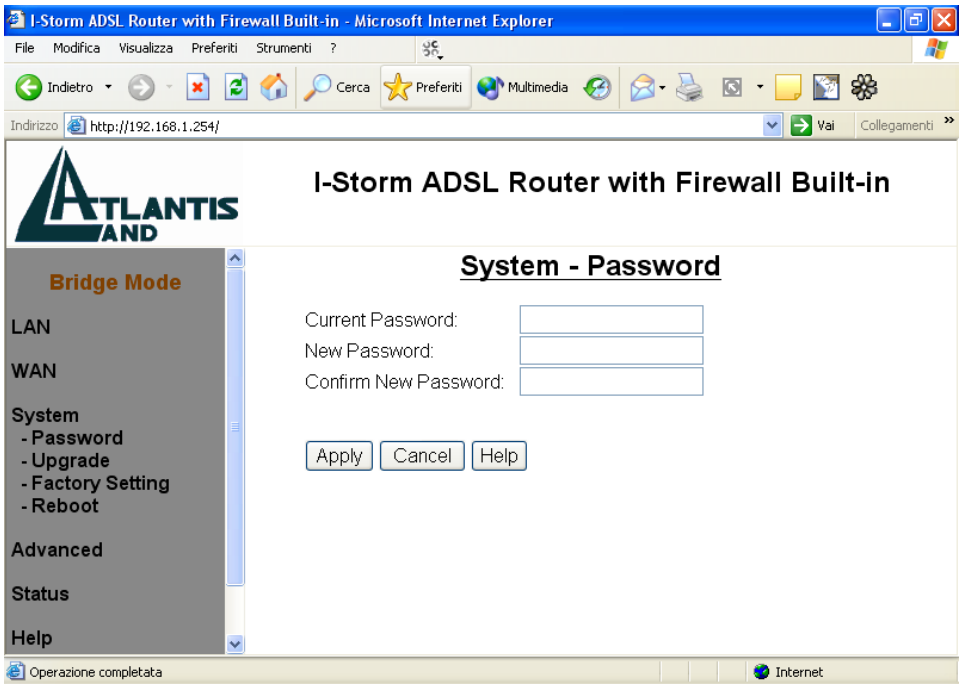
**Refresh / Clear:** Click **"Refresh"** to get the latest information of system logs, or click **"Clear"** to eliminate all the system logs showed on this screen.

### 3.5.6 Help




After click on the hyperlink of "Help" in the left pane, the following html page will jump out. This page would be a good reference as you precede the configuration.

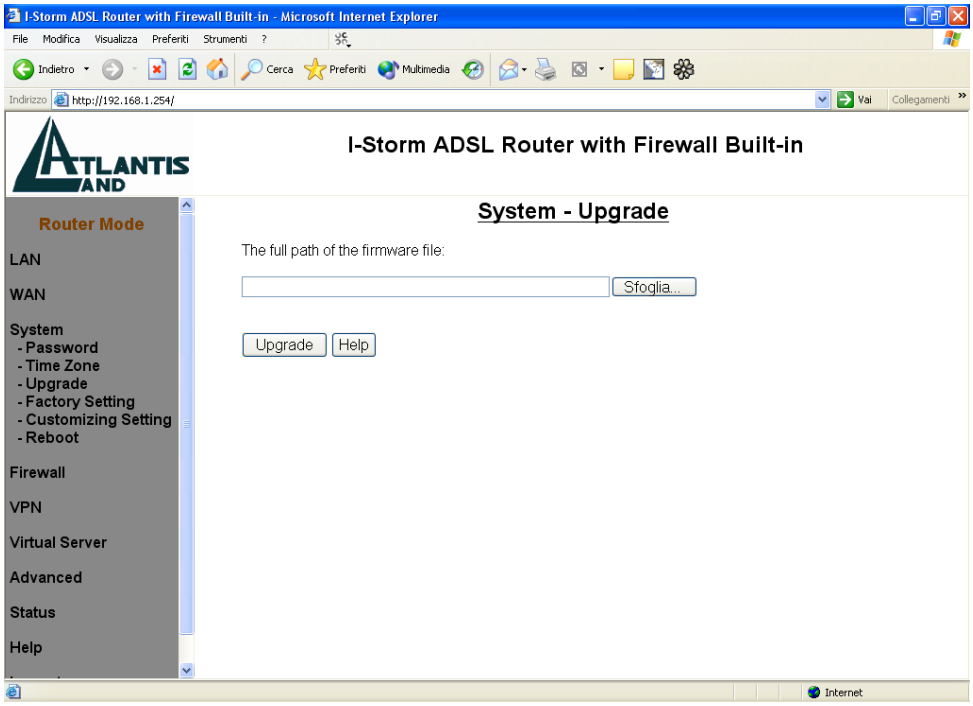
## 3.6 Changing Password




In factory setting, there is no password protection when user accesses the ADSL Router. It is recommended that you change the default password <BLANK> to ensure that someone cannot adjust your settings without your permission. <BLANK> means there is no password. Every time you change your password, please record the password and keep it at a safe place.

Please note that the maximum input for password is **8** alphanumeric characters long. Since it is **case sensitive**, be sure that you remember whether a letter is in upper or lower case and make sure that your Caps Lock is off.

# 3.7 Firmware Upgrade




To upgrade the firmware of I-STORM ADSL ROUTER , you should download or copy the firmware to your local environment first. Press the **"Browse…"** button to specify the path of the firmware file. Then, click **"Upgrade"** to start upgrading. When the procedure is completed, the router will reset automatically to make the new firmware work.

# Chapter 4
# Troubleshooting

If the ADSL Router is not functioning properly, you can refer first to this chapter for simple troubleshooting before contacting your service provider. This could save your time and effort but if the symptoms persist, then consult your service provider.

## Problems Starting Up the I-STORM ADSL ROUTER

| Problem | Corrective Action |
|---|---|
| None of the LEDs are on when you turn on the I-STORM ADSL ROUTER . | Check the connection between the adapter and the I-STORM ADSL ROUTER . If the error persists, you may have a hardware problem. In this case you should contact technical support. |

## Problems with the WAN Interface

| Problem | Corrective Action |
|---|---|
| Initialization of the PVC connection failed. | Ensure that the cable is connected properly from the ADSL port to the wall jack. The ADSL LED on the front panel of the I-STORM ADSL ROUTER should be on. Check that your VPI, VCI, type of encapsulation and type of multiplexing settings are the same as what you collected from your telephone company and ISP.<br>Reboot the I-STORM ADSL ROUTER . If you still have problems, you may need to verify these variables with the telephone company and/or ISP. |

## Problems with the LAN Interface

| Problem | Corrective Action |
|---|---|
| Can't ping any station on the LAN. | Check the Ethernet LEDs on the front panel. The LED should be on for a port that has a station connected. If it is off, check the cables between your I-STORM ADSL ROUTER and the station. |
| | Verify that the IP address and the subnet mask are consistent between the I-STORM ADSL ROUTER and the workstations. |

# Problems Connecting to a Remote Node or ISP

| Problem | Corrective Action |
|---|---|
| Can't connect to a remote node or ISP. | Check ***section 3.4.8 "System Status"*** to verify the line status. |
| | In ***section 3.4.7 "Remote Config"***, verify your login name and password for the remote node. |

# APPENDIX A
# Specification

| | |
|---|---|
| **Protocols** | IP, NAT, PPTP, ARP, ICMP, DHCP, PPPoE, PPPoA, IpoA, PPTP client, RIP1/2 |
| **LAN Port** | RJ-45, 1 ports 10/100Base-T |
| **WAN Port** | RJ-11, 1 ADSL port |
| **LED Indicators** | PPP, LAN-ACT, LAN-COL, ADSL, Power |
| **Input Power** | 5V DC @1.5A |
| **Power Consumption** | < 6 watts |
| **Agency and Regulatory** | FCC part 15 Class B, VCCI, CE |
| **Physical Dimension** | 212 x 142 x 38 $mm^3$ (L x W x H) |
| **Weight** | 500g |
| **Operating Temperature** | 0℃ to 45℃ |
| **Storage Temperature** | -10℃ to 70℃ |
| **Operating Humidity** | 5-95% non-condensing |

# APPENDIX B
# Product Support

If you have any problems with the ADSL Router, please consult this manual. Most problems can be resolved by using the *Troubleshooting* chapter.
If you continue to have problems you should contact the dealer where you bought this ADSL Router.
If you have any other questions you can contact the Atlantis Land company directly at the following address:


***AtlantisLand spa***

***Via Gandhi 5 Ing2,Scala A***

***20017 Mazzo di Rho(MI)***

**Tel: 02/93906085, 02/93907634(help desk)**
**Fax: 02/93906161**
**Email: info@atlantisland.it or tecnici@atlantisland.it**
**WWW: http://www.atlantisland.it or www.atlantis-land.com**